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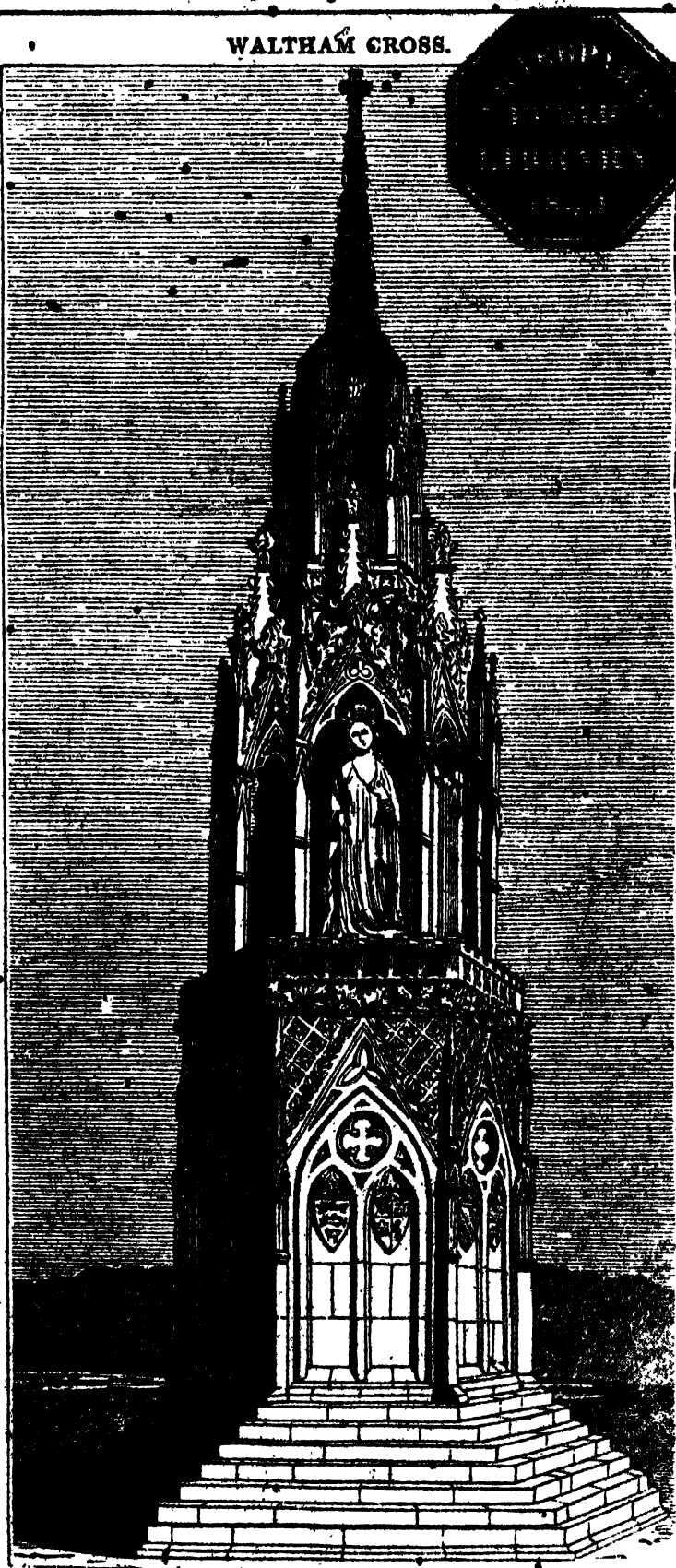
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[JANUARY 4, 1834.]

WALTHAM CROSS.

WALTHAM Cross was built within the last ten years of the thirteenth century, when the pointed style of architecture was undergoing a change, or passing from the first to the second period. It is one of about fifteen which were erected by Edward I., in memory of his affectionate and devoted wife Eleanor of Castile, in the places where her corpse was rested for the night, in the long and melancholy journey which he himself made with it from Herdeley in Nottinghamshire, not far from which place she died, to Westminster Abbey, where it was buried in the chapel of King Edward the Confessor. They were long known as Queen Eleanor's crosses, and although all but three of them have perished, tradition still marks the sites of most of the number. Charing-Cross derives its name from the last of the series, and the other two still existing, besides Waltham, are at Northampton and Geddington.

This one of the series of beautiful memorials of conjugal love, and perhaps the most beautiful of them all, had fallen so much into decay as to become an almost shapeless mass of stone. A few years more would have left nothing of Waltham Cross remaining but the name. Fortunately the attention of the neighbouring gentry, and of others who take an interest in such subjects, was



[View of Waltham Cross.]

called to this while it was yet time to save something of its pristine form and matter, and while it still afforded indications upon which much that was deficient might be restored. A meeting was consequently held, at which Colonel Moody of the Royal Engineers presided; resolutions were entered into to raise money by subscription for the purpose of restoring or repairing the monument, and a subscription was immediately commenced by those who were present. The designing and direction of the work were intrusted to Mr. W. B. Clarke, assisted by a committee of the subscribers. The restoration is, upon the whole, satisfactory.

The subscription which has been entered into for the purpose of repairing this interesting monument is very creditable to those who have set it on foot. It is pleasant to find a spirit of attachment to our old historical memorials springing up on every side. The last generation, and those who went before them, were too much in the habit of destroying the relics of their forefathers,—at any rate, of leaving time to work their destruction. We have learnt that the ancient monuments of a nation are amongst its best possessions.

Mr. Clarke has favoured us with a drawing of the annexed wood-cut, which exhibits the Cross as restored.

•PERPETUAL MOTION.

(From a Correspondent.)

AN able writer in the 'Penny Magazine' has clearly shown the futility of seeking to *square the circle*, a pursuit in which, he says, persons are still engaged. How many may waste their time on such an object I have no means of knowing;—not any considerable number, I should think, as nobody can expect any profit to arise even from success. At all events, such enthusiasts must be few indeed compared with those who are spending their days and nights, and exhausting their means, in the equally vain hope of discovering the perpetual motion. Professional men, employed in preparing patents, could tell of project after project submitted to them by the impatient inventor who is afraid of waiting to perfect his machine, lest his invaluable secret should get abroad, and he should be deprived of the riches which he has all but in his grasp.

Two classes of persons are inveigled into this hopeless quest: the first is the projector,—generally a man who can handle tools, and who is gifted with some small power of invention,—a faculty, as Mr. Babbage justly observes, by no means rare, and of little use unless coupled with some knowledge of what others have done before him. Of the inventions already made,—of the experiments which have been tried and have failed,—our projector is usually profoundly ignorant. What are called the laws of mechanics, namely, general truths which were established by the observations of scientific men in times past, and which are now admitted by all who take the trouble to investigate them, he has either never heard of or chooses to set at naught without inquiry. The other class is that which finds capital. The projector, having perhaps exhausted his own funds, takes his scheme to some person who has a little money to spare, and dazzles him with the prospects of sudden and splendid wealth: little by little he is drawn into expenses which neither of them perhaps had anticipated. Failure after failure ensues, but still all is to be right at last. The fear of ridicule,—the necessity for retrieving, the one his capital, the other his credit,—these motives carry them on till the ruin of both puts a termination to their folly.

Unhappily, however, the stage is quickly occupied by other adventurers, profiting nothing by the fate of their precursors; and yet one would think that a very slight consideration of the subject would be sufficient to show the absurdity of the undertaking. What is the object aimed at? Is it to make a machine which, being once set in motion, shall go on without stopping until it is worn out? Every person engaged in the pursuit of the perpetual motion would perhaps accept this as a true statement of the object in view. Yet nothing is more easy than to make such a machine. There are from ten to twenty of them at work at this moment on the Rhine, opposite Mayence. These are water-mills in boats, which are moored in a certain part of the river; and, as the Rhine is never dry, these mills, which are simple in their construction, would go on for years,—go on, indeed, until they were worn out. But if this instance were mentioned, the projector would perceive that the statement of his object was imperfect. It must run thus:—a machine which, being set in motion, shall go on till worn out without any power being employed to keep it in motion.

Probably few persons who embark in such a project sit down beforehand to consider thoroughly what it is they are about to undertake, otherwise it could hardly require much knowledge of mechanics to see the impossibility of constructing such a machine. Take as many shafts, wheels, pulleys, and springs as you please: if you throw them in a heap in the corner of your room,

do not expect them to move; it is only when put

together that the wildest enthusiast expects them to be endowed with the power of self-movement; not then unless the machine is set going. I never heard of a projector who expected his engine to set off the moment the last nail was driven, or instantly on the last stroke of the file. And why not? A machine that would continue to go of itself would begin of itself. No machine can be made which has not some friction, which, however slight, would in a short time exhaust any power that could have been employed merely for the purpose of setting it in motion. But a machine, to be of any use, must not only keep moving itself, but furnish power; or, in other words, it must not only keep in motion, but it must have power to expend in some labour, as grinding corn, rolling metals, urging forward a vessel or a carriage; so that, by an arrangement of parts which of themselves have no moving power, the projector expects to make a machine, self-moving, and with the power of performing some useful task!

"Father, I have invented a perpetual motion!" said a little fellow of eight years old. "It is thus: I would make a great wheel, and fix it up like a water-wheel; at the top I would hang a great weight, and at the bottom I would hang a number of little weights; then the great weight would turn the wheel half round and sink to the bottom, because it is so heavy, and when the little weights reached the top, they would sink down because they are so many, and thus the wheel would turn round for ever." The child's fallacy is a type of all the blunders which are made on this subject. Follow a projector in his description, and if it be not perfectly unintelligible, which it often is, it always proves that he expects to find certain of his movements alternately strong and weak, not according to the laws of nature, but according to the wants of his mechanism.

If man could produce a machine which would generate the power by which it is worked, he would become a creator. All he has hitherto done,—all, I may safely predict, he ever will do,—is to mould existing power so as to make it perform his bidding. He can make the waterfall in the brook spin his cotton, or print his book by means of machinery, but a mill to pump water enough to keep itself at work he cannot make. Absurd as it may seem, the experiment has been tried; but, in truth, no scheme is too absurd for adoption by the seekers after perpetual motion. A machine, then, is a mere conductor of power into a useful channel. The wind grinds the corn,—the sails, the shafts, and the stones are only the means by which the power of the wind can be turned to that particular purpose; so it is the heat thrown out by the burning coal which performs all the multifarious operations of the steam-engine, the machinery being only the connecting links between the cause and the effect.

Perhaps these remarks may induce any projector who has not yet begun, to pause on his enterprise; and may cause those who are about to advance their capital in such vain speculations, to examine the probabilities of a return for their outlay.

•BREAD IN THE EAST.

A PERSON accustomed to the lengthened processes by which food is prepared in Europe, is considerably surprised when brought to observe the rapidity of similar preparations in the East. A sheep is killed, flayed, and cooked in the course of an hour and a half; coffee is roasted, ground, and boiled in about ten minutes; and meal is kneaded and baked—and perhaps the corn ground—in seldom more than twenty minutes. Much of this may be accounted for by the heat of the climate, by which many articles would be spoiled if kept too long previously to being used. Meat would be tainted in less than a day; the oily principle in coffee would soon be lost, and its pleasant aroma evaporate; and

loaf bread would quickly turn sour, or be rendered unpleasant by the absorption of its moisture. With this cause concur the habits of life which continue to indicate the common origin of the various tribes of people who inhabit the countries between the Indus and Mediterranean; for such is the wonderful tenacity with which ancient habits are retained in the East, that in one state of society we frequently find the usages of another, more early and rude, persisted in. Four thousand years ago, when the hospitable patriarch wished to place some refreshment before those who appeared to him as travellers in haste, he directed bread to be baked, and a calf to be killed and dressed for their entertainment. Hospitality would still be exhibited in the same form under similar circumstances, and, in any circumstances, as little delay would occur in the preparation of food, although it had many processes to go through.

The various modes in which the grain is disengaged from the ear, reduced to meal, and made into bread, are all so different from our own, that one who has witnessed what he describes is led to think a connected view of the subject will not be unacceptable to the readers of the 'Penny Magazine.'

In or near villages there are usually inclosed threshing floors, perfectly level, and laid over with a compost of clay and cow-dung, to prevent gravel and earth from being mingled with the grain. But generally, as it would be inconvenient to take the sheaves from the fields to the villages to be threshed, the husbandman seeks out some level spot on his grounds, to which the produce of the harvest is conveyed on the backs of his various cattle. At this place a portion of the corn in the ear is laid out in a circle of about a hundred paces in circumference, seven or eight feet wide, and from fifteen inches to two feet in height. When it is thus disposed, there are various methods of obtaining a separation of the grain from the ear,—all of them more expeditious though less cleanly than ours. It is often effected by simple treading. Oxen, and sometimes other cattle, are tied two or three together, and driven around upon the circle. As this exercise greatly fatigues them, they are frequently relieved. In some parts oxen are employed to draw a stone cylinder over the corn; and, in the western parts of Asiatic Turkey, a plank or frame of wood, the lower surface of which is roughened with sharp stones, is the implement in use. But, in Persia and the eastern parts of Turkey, they have a frame-work, to which is attached two or three revolving cylinders of wood, bristled with spikes of different lengths, and which may not unaptly be compared to the barrel of an organ. These teeth punch out the grain with considerable effect, and chop and crush the straw at the same time. On the platform of this sufficiently clumsy machine sits a man who whips on the cattle,—generally a couple of oxen,—which in all these processes have a beam laid over their necks. Men are always in attendance with wooden forks, which have often many teeth spreading out like a fan, to keep the ears properly distributed, and to withdraw, into the clear centre of the circle, the straw on the surface which appears to have been sufficiently threshed. When the grain seems completely disengaged, it is thrown up with spades against the wind, so that the separated grain, the chaff, and the uncrushed ears fall at different distances. The latter are thrown by among the material of the next layer. When one layer has been threshed, and the grain removed, the straw which had been withdrawn into the central space, is replaced in the ring, and driven over to be crushed and chopped for the use of the cattle, whose food is composed of barley and chopped straw, as they use neither hay nor oats in the East. The process of threshing concludes with the careful collection of the clods of earth to which any

grains adhere, and of the dust with which any may be mingled, and which is sifted with much care.

The very primitive process of grinding the corn is less varied than that of threshing. It is performed by the means of two small circular mill-stones. The lowermost stone is immoveable when in use; but the uppermost being turned round by a wooden handle or pin, the corn between the two surfaces is ground, and the meal falling out at the edges, is received in a cloth, while the mill is continually replenished through a hole in the upper stone. This labour is generally performed in the early morning by the women of the household. They sit upon the ground, commonly two to a mill, the lower part of which is held between their legs. As the upper stone is whirled round, the women beguile their labours by singing, at the top of their voices, certain songs which seem almost appropriated to this service. The simultaneous noise of grinding and singing in an Oriental city warns the indolent that it is time to rise; and the absence of such sounds is noticed in the Old Testament as a mark of desolation. This mode of grinding by women, with the tuneful accompaniment, is by no means confined to Asia. The same practice has been observed in Lapland; and Pennant not only notices something very similar in Scotland, but gives an engraving which very well represents the Oriental process. It is the same in Africa. Many readers will remember the pathetic incident in the travels of Park, in which some African women having taken him, when ready to perish, to their homes, beguiled their labours by an extempore song lamenting his destitute condition. That he had "no wife to grind his corn," was the burden and climax of their song. A verse of Mrs. Barbauld's version may be given:—

"Unhappy man, how hard his lot;
Far from his friends—perchance forgot
As thus he sits forlorn!
He boasts no mother to prepare
The fresh-drawn milk, with tender care,—
No wife to grind his corn!"

So much corn is generally ground every morning as will serve the family for the day; and after the grinding the process of baking immediately commences.

The oven is usually built of clay, and generally inclines in shape to a cone, being about three feet high, and much wider at the bottom than the top, where there is an opening of more than a foot in diameter; and near the bottom there is another hole for the convenience of introducing fuel and withdrawing ashes. There are portable ovens of this kind, made of stout earthenware, one of which is usually planted in the fore-castle of the vessels navigating the Tigris, and in which bread is baked every day. In Kourdistan and Armenia, the general construction, which resembles a lime-kiln, is in the main preserved, but with this difference, that the oven, instead of being raised above the ground, is dug in it, and is made to serve, besides, all the usual purposes of a fire-place. The oven is heated with wood; and when it is burnt down to clear embers, which lie at the bottom and long continue to afford much heat, the dough is prepared in a large wooden bowl, and portions are successively moulded into the form of thick round cakes on a board or stone near the oven. These, when flattened out to about the size of a breakfast-saucer, the woman takes up and tosses about on her arms, with surprising dexterity and quickness, till it becomes no thicker than a pancake, and forms a circle of a foot in diameter, or an oblong of a foot and a half in length. When the cake is brought to the requisite thinness, one side is wetted with water as well as the hand and arm by which it is introduced into the oven. The wet side, by an operation which requires much tact with a piece of dough of such tenuity and extent, is stuck against the side of the oven, where it adheres until per-

fectly baked, when, if not properly attended to, it would fall into the hot embers at the bottom; and, if prematurely removed, cannot again be attached. Its timely removal becomes therefore an operation requiring much judgment and care. If the introduction and removal of the cakes were not rapidly performed, the heat of the oven is generally so great that the arms and hands of the woman would be much injured. But such is the facility acquired by habit in all these operations, from the tossing of the cake to its final removal from the oven, that one woman finds no difficulty in attending to the baking of five or six cakes at once, at the same time preparing others to replace those withdrawn. The baking takes about five minutes, or less, according to the heat of the oven. The women pride themselves greatly on skill in these operations; and among the Arabs, Kourds, Armenians, and the Eelauts of Persia, the reputation of being a skilful maker of bread powerfully recommends a young woman to the attention of those who are desirous to marry.

The bread made in the manner we have described varies according to the prevailing taste in different parts. It is sometimes rather thin and crisp; but more generally flexible and moist—often, indeed, changed but slightly from the state of dough. In about twenty-four hours it becomes very hard, and cannot well be used without previous soaking in water; consequently bread is only baked or bought for the occasions of the current day. This bread is not generally liked by Europeans, and the writer felt no small satisfaction in finding at Erzeroom, all the way from thence to the Black Sea, and at Constantinople, this pancake-bread superseded by loaves which are baked in ovens not much unlike our own. This change probably arose from the circumstance that the colder climate enabled the people to have bread which might be kept longer than a single day. It is common in that part of the country to see a large loaf of brown bread in the shop windows, slices from which, sold by weight, the poor people purchase as their wants require.

Besides the ovens before described, there is a much simpler process of preparing the cake-bread, which we first had occasion to notice as performed by a poor Eelaut woman near the river Eraskh in Azerbaijan, before the door of a hut, about six feet square, formed of mats and sticks. A convex plate of sheet-iron was supported, about five inches from the ground, by stones with the convexity upwards. This plate was heated by a slow fire underneath, and the thin cakes of dough were laid upon it and baked, less expeditiously, but we thought far more conveniently and cleanly, than by the other processes, in which particles of the clay, with which the oven is built or lined, are often brought away with the bread.

There is a mode different from any of those mentioned, by which a thin bread or biscuit is prepared, not thicker than a wafer, and which, being very crisp and dry, keeps much longer than any of the breads described. A thin paste is prepared, like that which we use in making puddings, and it is poured out and spread upon the outer surface of a portable oven of metal, stone, or earthenware. It is immediately consolidated by the heat, and baked in a moment.

The Dodo.—Mr. Re-nagle, the eminent artist, has sent us a letter confirmatory of the existence of the Dodo, of which an account was given in the 75th Number of the 'Penny Magazine.' Mr. Re-nagle states, that while he was, for several years, engaged in the study of zoology, he had frequent occasion to hold discussions with Dr. Shaw of the British Museum, and with Messrs. Parkinson, on subjects in zoology of rare existence. He was on one occasion invited to spend a whole day with Dr. S. at the Museum, where he amused himself with a general examination of

the numerous objects of natural history, unstuffed birds, animals, and reptiles, which were heaped together in the then lumber-room. After turning over a vast pile, he discovered the head and beak, with the short thick legs, of a bird, which instantly struck him to be those of the Dodo. Mr. R. immediately ran with the relic to Dr. Shaw, who in the end concurred with him in considering the remains as those of the Dodo, the existence of which seemed to them no longer questionable. Mr. R. has not been able to learn what became of the fragments, but they ought still to be somewhere in the British Museum.

THE VAIN REGRET.

Oh! had I nursed, when I was young,
The lessons of my father's tongue,
(The deep laborious thoughts he drew
From all he saw and others knew.)
I might have been—ah, me!
Thrice wiser than I e'er shall be.
For what saith Time?
Alas! he only shows the truth
Of all that I was told in youth!
The thoughts now bidding in my brain,—
The wisdom I have bought with pain,—
The knowledge of life's brevity,—
Faint friendship,—false philosophy,
And all that issues out of woe,
Methinks, were taught me long ago!
Then what says Time?
Alas! he but brings back the truth
Of all I heard (and lost) in youth!
Truths! hardly learn'd and lately brought
From many a far forgotten scene!
Had I but listen'd, as I ought,
To your voices, sage,—serene,
Oh! what might I not have been
In the realms of thought!

• BARRY CORNWALL'S *English Songs*.

THE AURORA OF GUIDO.

THE celebrated Aurora of Guido adorns one of the ceilings of the Palazzo Rospigliosi at Rome. The picture is painted in what may be called a middle manner, between the extremes of the two styles. In this great artist practised at different periods of his life. Guido is chiefly known in this country by a style of silvery brightness, which he was led to adopt, less, by any natural predisposition towards it than by a desire to obtain novelty, by a mode of practice directly contrasted to the dark and forcible manner of Caravaggio, which had acquired great popularity, and which he had begun by imitating. In all that relates to composition, character, and expression, the Aurora must rank among Guido's finest performances. The general conception is in the highest degree poetical; the figure of Apollo unites grace with dignity; and that of Aurora, flying before him and strewing flowers upon the earth, seems buoyant as the morning breeze itself. It may be objected to many of Guido's figures, however admirable in other respects, that their action is artificial, and even theatrical. The present composition is, however, entirely free from that defect: the action of the Hours is playful and simple, and the expression of their faces is admirably sweet and natural. The general vivacity of the effect is finely attempered by the still, broad, and brilliant light which surrounds the Apollo, and by the serene and silent aspect of the lower part of the picture, in which the earth and ocean seem just awakening beneath the dawn of day.

The great merits of this work,—those of poetic conception and beautiful character,—are attempted to be given, however inadequately, in our engraving.

The picture itself is not one of Guido's happiest efforts of colouring. The hues of the draperies are too violently contrasted, and the sky presents a uniform mass of deep blue, the unpleasant effect of which, however, has probably been heightened, or altogether occasioned, by injudicious reparation.

THE AURORA OF GUIDO.



"O, mark! again the coursers of the Sun,
At Guido's call, their round of glory run!"

Again the rosy Hours resume their flight,
Obscured and lost in floods of golden light."
Rossini's Epistle to a Friend.

TRADE WITH AMERICA.

PREVIOUS to the war which ended in the independence of the United States, that country was supplied from England with most articles which were required for domestic comfort or household decoration. Although the industry and skill of the Americans have subsequently been exerted on home manufactures as substitutes for these foreign commodities, yet such has been the growing prosperity of both countries since that period, that the average annual amount of the exports from England to the United States of America, is now much more than quadruple what it was between the years 1750 and 1760.

The official value of the medium annual exports to the whole of the Americas, both North and South, between the years 1749 and 1755, was 2,001,690*l.*; between the years 1784 and 1792, 5,605,626*l.*; in 1830, 21,117,014*l.* For the United States alone the exports from this country, in 1830, were 8,236,677*l.*; and if to this amount be added 2,619,562*l.*, the value of the exports, in the same year, to the British possessions in North America, the value will be 10,856,239*l.* This amount is nearly equal to the 10,915,778*l.* which was the total amount of exports from England, in 1760, to all parts of the world except India and China: the value of the exports to the latter places only amounted to 736,358*l.*

The almost entire dependence of the British North American Colonies upon the parent country, for a supply of almost every article of commerce and luxury, is curiously illustrated, by an order sent to Glasgow for supplies for General Washington's family, in the general's own hand-writing, and dated the 20th of September, 1759*. We think this document will be found of interest, not only as illustrating the character of some part of our trade with America at the early period to which we have alluded, and as showing the relative position of the two countries with regard to arts and manufactures previous to their dismemberment, but as exhibiting a great public character interesting himself in family arrangements, and in the minute details of private life. It will be remembered that with the same hand, which, on this occasion, penned an order for a ribbon to adorn his wife, and barley-sugar for his children, he had a few years after to sign the treaty of peace, whereby the independence of his country was fully recognised.

"2 beaver hats, plain, each to cost a guinea; 1 sword-belt of red morocco leather or buff,—N.B., no buckles or rings; 4 lbs. of ivory blacking; 2 best two-bladed knives; 1½ ream of paper; 2 flowered lawn aprons; 2 pair woman's white silk hose; 6 pair fine cotton ditto; 4 pair thread ditto; 1 pair black and 1 pair white satin shoes of the smallest size; 6 pair woman's best kid gloves; 6 pair ditto mittens; 1 black mask; 1 dozen most fashionable pocket handkerchiefs; 2 pair neat small scissors; 1 lb. sewing silk, shaded; 4 pieces binding tape; 19 M. pins (different sizes); 3 lbs. Scotch snuff; 3 lbs. best violet Strasburgh; 1 piece white satin ribbon, pearl edge; 1 case of pickles; 1 large Cheshire cheese; 4 lbs. green tea; 10 gross best corks; 1 hhd. best porter; 10 loaves of double and 10 of single refined sugar; 3 snaffle bridles; 9 best girths; 25 lbs. brown soap; 2 dozen packs playing cards; 2 sacks best English oats; 1 dozen painter's brushes; 12 best hand padlocks; 18 bell-glasses for garden; more chair bottoms, such as were wrote for in a former invoice; 1 more window-curtain and cornice; busts of copper enamel or glazed, viz., of Julius Cæsar, of Alexander the Great, of Charles XII. of Sweden, and another of the King of

Prussia—these all to be of the same size in order to fill up broken pediments over doors, and not to exceed 15 inches in height nor 10 inches in width; Prince Eugene and the Duke of Marlborough, of somewhat smaller size than the above; sundry small ornaments for a chimney-piece that is 6 feet long and 8 inches broad; 100 lbs. of white biscuit; 2 lanterns, various cloths (as specified), with buttons and threads, enough to make up into clothing; 40 yards coarse jean or bustian for summer frocks for negro servants; 1 piece downlass at 10*d.*; 1 dozen pair coarse strong thread hose for negro servants; 450 ells Osnaburgh; 350 yards Kendal cotton; 100 yards Dutch blankets; 20 lbs. brown thread; 20 sacks of salt; a large quantity of different kinds of nails (specified); 2 dozen best staples; sets of cooper's and joiner's tools; 5 lbs. white sugar-candy; 10 lbs. brown ditto; 1 lb. barley-sugar; a large quantity of drugs and horse medicines of different sorts (specified).

MONKEYS AT GIBRALTAR.

(From a Correspondent.)

WHEN I was at Gibraltar, the most amusing creatures in the garrison were the wild monkeys that ran about in great numbers on the face of that remarkable rock. As they were constantly seen, they were frequently the subject of conversation. People used to wonder where they came from, as they are not found in the neighbouring mountains of Spain, nor indeed, in their wild state, in any other part of Europe; and it was equally matter of surprise how they lived on a bare rock that produced nothing but scorpions, lizards, a few black snakes, and, here and there, some dried up and diminutive shrubs that looked as sapless as the rock itself. The soldiers and common people, indeed, accounted for all this in a manner perfectly simple and satisfactory to themselves, by assuming, as a certainty, that the celebrated Saint Michael's Cave, which has a mouth or entrance near the summit of the Rock of Gibraltar, and which penetrates to a depth that nobody as yet has been able to ascertain, is continued under the bed of the sea all across the Straits which separate the rock from Africa, and has a corresponding mouth on Mount Abyla, or "Apes' Hill," (as the African mountain is popularly called,) which is just opposite, and abounds with monkeys of precisely the same description. I felt it, however, rather difficult to conceive this double cavern and this connecting tunnel, which must be some sixteen miles long even if it ran in a perfectly straight line, or that the monkeys (supposing such a communication to exist between Europe and Africa) could have used it as a road by which to emigrate; or (another thing included in their theory) that the monkeys continued constantly to use it, going to and fro for their supplies of provisions, &c.

It is not so amusing, but more natural, to suppose that, when the Moors invaded Spain from the opposite coast and settled in Gibraltar, some monkeys were brought over with them; or that, at a more recent period, when the Spaniards, among other possessions in Africa, held Ceuta, in the neighbourhood of Apes' Hill, that they sent some monkeys to the garrison; then that some of these cunning creatures escaped, and taking refuge in the inaccessible cliffs and caverns which compose so great a part of the rock of Gibraltar, propagated their species at liberty, and laid the foundation of the now numerous and flourishing colony. The all but isolated position of Gibraltar, which is joined to the main land by a low, narrow isthmus of sea-sand, which, at no very remote period, has evidently been under water, may account for their remaining confined to that rock and not extending into Spain.

In whatever manner they may have come, there they

* The list has already been published in Dr. Cleland's 'Statistical Account of Glasgow,' having been taken from Mr. Dugald Bannatyne's 'Common-place Book,' into which it had been transcribed from the original document. We have been obliged by our limits to abridge it greatly.

are, and, as I have said before, in great numbers. On my walks to the upper part and the back of the Rock;—which were very frequent in the summer evenings,—I scarcely ever returned without having seen many of them. Sometimes going quietly along, and turning the corner of a rock, I would come suddenly on a large party, seated in a circle like neighbours met together for the pleasure of an evening gossip. The rapidity with which they would decamp on such occasions, and the easy way in which they climbed up the steepest rocks, were astonishing. All that I had seen of the gambols of a captive monkey in England was as nothing compared with the feats of these free denizens. They would never stop or make any noise until they reached a position where it was impossible for man to follow them; but when once there in safety, they would face about, mew and chatter, and make the strangest grimaces, as if mocking me. If I threw stones at them, they would draw themselves into holes or shelter themselves behind some projection of the rock. After the flight of the stone they would re-appear, and scream and make faces anew; but as soon as they saw me stoop to pick up another stone, or raise my hand to throw one I might have already in it, they would again withdraw to their defences as quick as thought. Once, and only once, I succeeded in hitting a sturdy old fellow that seemed the patriarch of the tribe; he set up a curious, shrill, wild cry, which was echoed by his companions, and the next moment they all crossed a higher ridge of the rock, which in many places is narrower than a camel's back, and took refuge in the lofty perpendicular cliffs that rise above Catalan Bay. They seemed to be exceedingly gregarious. I do not remember having ever met with them except in rather large parties.

In the earlier part of my residence in the garrison,—in the months of May and June,—I used often to surprise these monkey parties when they had their young ones with them. These were the most interesting circumstances under which the animals could be seen. Their maternal affection was exemplary. The moment they were surprised, the old ones would take up each her little one on her back and so scamper up the rocks, never stopping, as at other times, to chatter and make faces, but running on until far beyond sight or reach. They carried their young precisely in the fashion which school-boys call pick-a-back. However they might be surprised and close pressed, they never forgot their offspring in their own safety, or retired from the spot without their little ones. On one occasion I saw the curiosity and turn for imitation, which are so characteristic of all their tribe, very amusingly exemplified. The telegraph, which is situated on one of the loftiest points of the rock, was busily at work, announcing the approach of some ships from the Atlantic. On a ridge of the rock, at a short distance, a party of about a dozen monkeys had assembled; they sat all with their faces turned towards the signal-house, as though they understood, or were trying to understand, the mystic signs; and every now and then, as the arms of the telegraph swayed up and down, some of them waved their arms in the same manner, as if mimicking or repeating the motion of the machine.

Some of these animals are always to be seen on the front of the rock; but their favourite resorts and strongholds are at the back of the rock, which, except for a few hundred feet on turning Europa Point at the south, and a much shorter space by Catalan Bay at the north, consists of towering cliffs which drop almost perpendicularly into the Mediterranean, and afford no footing to man either from above or below. From this place of safety they are, however, frequently driven by the levanters, or strong easterly gales, which beat against the back of the rock with furious violence, and sometimes continue for

several days. On these occasions great numbers of them are to be seen; as the monkeys, for shelter, always cross the ridges of the rock and come to its front, or western and more accessible face. Meantime a dirty-grey cloud, or haze, gathers round the summits of the rock and rests motionless upon them, while everywhere else the atmosphere is clear. Now, in local purlance, "Old Gib has got his night-cap on," and whenever this is the case, and the monkeys "are all to the west," Gibraltar is a sad place to abide in. I have felt the famed sirocco wind in all its violence on the coast of Sicily and at Malta, but never suffered half so much from it as from the stifling easterly winds at Gibraltar.

In my time, the soldiers of the garrison used to say that the monkeys hated the sight of a red coat, and often threw or rolled stones down upon them as they were standing sentinel at the sides of the rock. If they did so, it was only fair retaliation, for the soldiers (particularly the new comers and young recruits) made it one of their principal amusements to hunt and annoy, and lay snares for the poor monkeys.

It is scarcely necessary to describe the Gibraltar monkey, as it is the same as the Barbary species, which is one of those most frequently exhibited in our streets by the strolling Italian boys. The size of the body is about equal to that of an Isle of Skye terrier,—perhaps rather larger. The colour is a sort of dirty fawn. It has no tail. The species is supposed to be found only in Barbary, Gibraltar, and Egypt.

EXPENDITURE OF A GREAT ABBEY IN ANCIENT TIMES.

THE Harleian Manuscript, No. 647, in the British Museum, gives precise information concerning the weekly as well as annual expenditure of the Abbey of St. Edmundsbury in the 14th year of Edward I. It presents an account of the necessities required to support 80 monks, 111 serving-men, 11 chaplains, the nuns of Thetford, and visitors to the monastery. It opens with an account of the weekly charges of the bakehouse and brewery:—16½ seams (that is, quarters) and 2 bushels of wheat, at 5s. the seam, 4l. 3s. 9d.; 12½ seams of barley malt, at 4s. per seam, 50s.; 32 seams of oat malt, at 3s. the seam, 4l. 16s.; wages of the servants in the brewery and bakehouse, each week, 4s. 4d.; fuel, 26s. 8d. The total of weekly charge, 13l. 9½d., giving an annual total of 678l. 1s. 2d.

Exclusive of this charge for the monastery, there is a separate account in the bakehouse and brewery for the abbot; the revenues of the abbot and convent, in all the greater monasteries, being kept separate, and the estates for the support of each detached from the other. The weekly expenditure in the abbot's department comes so near in amount (11l. 5s. 9d.) to that for the convent generally, that it seems necessary to add the remark that, as a parliamentary baron, the abbot was obliged to maintain a large retinue: he had his town residence and his country seats, and all the visitors to the monastery who held rank in society were necessarily his guests.

In the kitchen of the monastery, 10l. per week was expended on flesh, fish, eggs, cheese and other minor articles, making a total annual expenditure under this head of 520l., besides the purveyance of the cellarer, which consisted chiefly in the provision for Lent, during the continuance of which his expenditure was for herrings, 25l.; for 4 seams of pulse for gruel, 32s.; for 6 seams of beans, 30s.; honey, 6s. 8d.; nuts, 13s. 4d.; salt, 66s. 8d.; 42 seams of peas, for pottage through the year, 11l.; total annual expense in the cellarer's department, 43l. 8s. 8d. Here the abbot's portion comes in again; the weekly expenditure of which was, 6 carcasses and three quarters of oxen, at 4s. per ox, 27s.; 15 porkers and a half, at 3s. the porker, 46s. 6d.; 31 geese, at 2d. each, 5s. 2d.; 155 hens, at 1d. each, 12s. 11d. The weekly expenditure in the abbot's kitchen amounted to 4l. 15s. 7d., making an annual total, exclusive of fuel, of 568. 4s. 3d. The annual cost of fuel for the kitchen, to both the abbot and the convent, was 30l. A charge of 60l. then comes for the provender of the horses of the prior, cellarer, and hospitaller; and another 60l. is charged for pittances

misericordias, robes, horses, and other necessary expenses of the cellarer. All these various accounts make the gross annual expenditure of the abbey, as far as its affairs in the kitchen, the refectory, and the convent stables are concerned, amount to 1407*l.* 11*s.* 2*d.* This sum seems to have covered the maintenance as well as the hospitality of the convent in ordinary times; but, on particular occasions, a royal visit broke much deeper into the abbey revenues. The entertainment of King Richard II. and his queen at this abbey in 1383, alone cost the monastery eight hundred marks; and King Henry VI., in 1433, stayed there from Christmas to St. George's Day.

The large sums expended upon oaten malt may appear not very intelligible; particularly as the beer brewed from it was not likely to be made a drink of choice by the convent. But the immense number of servants and retainers who were regularly supported, added to those who came with visitors of rank, the constant access of the poor to the convent, and the recollection that travellers in former times resorted to monasteries instead of inns, will easily account for this branch of the expenditure.

THE NEW PIN.

THERE are few things which more strikingly exemplify the high point of civilization to which this country has attained than the amount of capital continually expended, the inventive talent exercised, and the powerful agencies employed, as the remedy of exceedingly small evils, and the attainment of equally minute objects of convenience. This remark cannot perhaps find a better illustration than in "The New Pin with an immoveable Solid Head." The defect in the old pin, which it is the object of the present improvement to remedy, is, that the head of the pin being separately spun and then put on, was liable to be detached by the pressure of the thumb. The principle of the improvement consists in this,—that the head being formed of the same piece with the body of the pin, the inconvenience attending its slipping is effectually prevented. This is the minute improvement in a minute article, the accomplishment of which has cost the patentees several years of attentive application, and the expenditure of a large capital, according to their own statement, which, when the extent and character of the machinery employed are considered, there can be no reason to doubt. At the same time, it must be taken in connexion with this improvement, that the patent pin is altogether produced by machinery, instead of partly by hand processes. "The Patent Solid-headed Pin-works" are situated about a mile from Stroud, on the Bath and Birmingham road. The principal building consists of five floors, each of them one hundred feet in length, and completely filled with machinery. A large iron water-wheel, on which a stream acts with a power equal to that of forty horses, gives motion to all the mechanical apparatus, which is so ingeniously constructed as to perform every essential operation for converting a coil of wire into the perfect pin with scarcely any noise and little apparent effort. Upon the old system, this comparatively insignificant article had to go through fifteen or sixteen hands before it was finished; but this curious machine effects the whole without manual assistance, or any extraneous aid whatever; for, the wire being placed on a reel, and the machine set in motion, all the mechanical combinations, so numerous and dissimilar in their movements, are simultaneously performing their various functions with a rapidity and precision truly surprising. While one portion of the apparatus is drawing out and straightening the wire, and cutting it off at the required length, another combination is pointing and polishing the pin, and another compressing a portion of the wire into dies to form a perfect and neat round solid head. The various movements are completely at command, and susceptible of instant alteration and adjustment to pins of any length, and heads of any form, while the machine is working at its ordinary speed. Each machine operates on four wires

at once, and from forty to fifty pins are with facility produced in a minute by each of the 100 machines which are completed, and in constant operation at the works. As a more particular detail of the process would not be well understood without engravings, we shall only further state that the works, with the present number of machines, are capable of producing upwards of two tons of pins weekly, or, stating the amount numerically, 3,240,000 pins daily, 19,440,000 weekly, supposing all the machines to be in operation twelve hours daily. It is stated that altogether twenty millions of pins are daily manufactured in this country for home consumption and for the foreign market.

Peter the Wild Boy.—Since we gave an account of Peter the Wild Boy, in No. 70 of the 'Penny Magazine,' we have received some further interesting information from a lady, a member of whose family knew this remarkable being. Peter was first found in the act of sucking a cow, in the woods of Hanover. Queen Caroline, who greatly interested herself about Peter, was very desirous of having him educated, and employed various masters to teach him to speak. After the Queen's death Government allowed a pension for him, and he was placed with Thomas Fen, a respectable farmer in Hertfordshire. He was accustomed in the spring of the year to wander away, subsisting on the green buds of trees, &c. His adventure in Norfolk, during one of these excursions, has been related, to which we may add that he was saved from the consequences of his supposed contumacy by some person reading in a newspaper an advertisement describing the missing Wild Boy. To prevent the recurrence of such serious adventures, he was provided with a brass collar, on which was inscribed "Peter the Wild Boy, Broadway Farm, Berkhamstead." When Peter was angry, he never attempted to strike or use his hands in any way but always endeavoured to bite. Pleasure he expressed by kissing the object that excited his admiration. When pleased he would also often dance about, shaking his brass collar, and making a humming noise which he intended for singing, but in which it was difficult to trace an air. Painting delighted him, and he would immediately kiss any object that was of vivid colours. He was passionately fond of music, and would endeavour to enter the room where any kind of music was performing, jumping and dancing to it. We have already described the extent of his vocabulary, to which he afterwards added "Höm Hen" (Tom Fen), intended for the name of the farmer whom he recognized as his master. Though quite harmless, Peter was sometimes sullen, and would never work if desired to do so; but, if nothing were said to him, he would often assist in the farm and do more work than three other men. He usually had bread and milk for supper, and as soon as he had taken it he always went up to bed; so that if he was wished out of the way, some bread and milk was given to him, and when he had finished it he would immediately go off to bed, even though it were still broad daylight. Peter could live on the simplest fare, but he much liked anything sweet, and any kind of confectionary. There is an anecdote of his having made his way into a room where all the sweet things were laid out, that were prepared for a grand fête given to Lord Chatham: and when the second course was called for, Peter was discovered, with a large bowl, in which he had mixed pastry, jellies, creams, and other niceties, employed, quite to his own satisfaction, in eating the whole collection with his hands. Peter was capable of very sincere affection; for he became attached in a very extraordinary manner to the farmer who succeeded Tom Fen in the charge of him; and, when this person died, he went to his bed-side, raised his hands, and endeavoured to awaken him; but when he found his efforts unavailing, he went down stairs and seated himself by the chimney. What his ideas of death were, cannot be known; but he refused his food and pined away, till in a few days he actually died of grief,—for he never had any illness.

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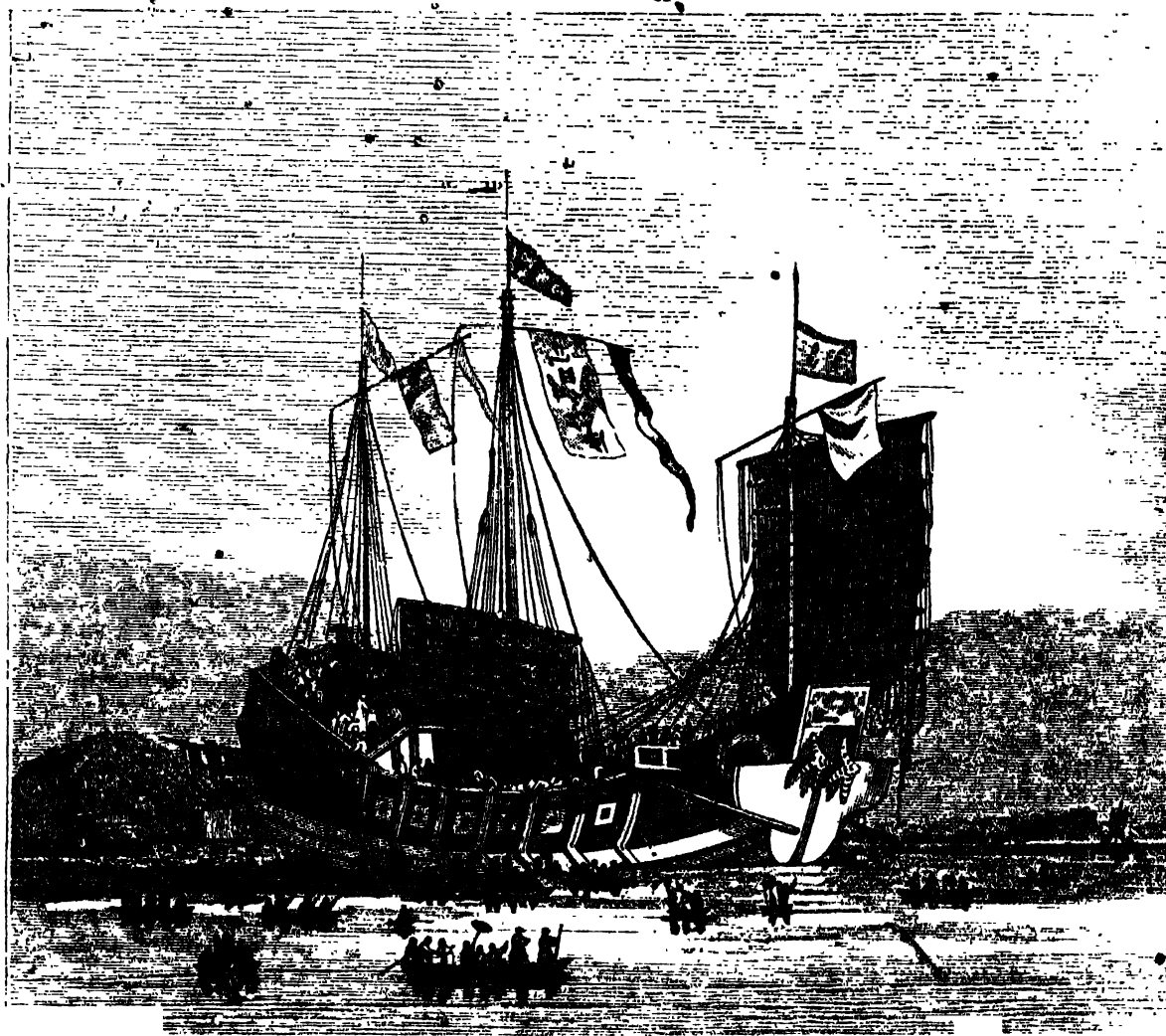
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THE CHINESE JUNK.

(From a Correspondent.)



[Chinese Junk.]

Of the many variously-shaped vessels in which men peril their lives and fortunes on the boisterous main, those of China, called junks, are among the most remarkable, as well as the most frail. They nevertheless make long voyages in their commercial intercourse with the Phillipine, Molucca, and other islands of the Indian Archipelago, also to Java, the Malay peninsula, and the coasts of Siam and Cochin China. In crossing the China seas, they always take advantage of the monsoons, as from their bulk and light draught of water they are calculated to make way against the wind; but these same reasons operate in assisting their velocity with favourable winds. Although they do not appear well adapted to withstand heavy seas, yet the fishermen who abound along the coast, and whose vessels are the only homes for themselves and families, willingly brave very bad weather in the pursuit of their calling—and owing probably to their buoyancy it seldom occurs that any founder.

To the eye they present a large unsightly mass, bearing, however, a singular and striking resemblance

to those of our own country about two centuries ago; with a great sheer like a half-moon, and their lofty poops and prows, as may be seen by comparing the above sketch with that of the "Harry Grace à Dieu." They are frequently 300 and 400 tons, and sometimes as much as 800; their rigging is of the simplest kind, consisting of two or three large masts composed of a single piece of timber, much stouter in proportion than European masts, on which traverse large square sails, which are increased according to the size of the vessel, but in number never exceeding three. These sails are of a reed or straw matting, with stout bamboos at intervals of two to two and a-half feet, extending horizontally along the surface; and at either extremity of these bamboos are attached lines for the purpose of adjusting the sails to the wind, and when it is desired to reduce (or reef) the sails, they are rolled up from the bottom by as many of these spaces as are thought necessary. The anchors are of the rudest construction, the material is always of wood weighted with immense stones lashed about, unprovided with a stock across to insure its

falling on the ground so as to take hold, and it appears to be indebted for the performance of its office more to its *vis inertia* than to its mechanical construction.

Among other peculiarities, is the custom of painting a large eye on each side of the bow, the Chinese very pertinently asking, "How can ship see, suppose he no hab eye?" This practice also obtains at Malta, and in other places, though I believe not for the same reasons as that given in China. Large junks, generally carry two long oars projecting forward, having the appearance of the antennæ in insects; their purpose is to accelerate the evolution of turning the vessel round. The hold is divided into compartments by partitions of stout plank, the seams being caulked with a cement of lime and oil, which becomes exceedingly hard when dry—this arrangement may have its advantages in vessels of such frail construction, conducing not only to the good condition of the merchandize, but also to the safety of the whole—each compartment thus becoming an independent vessel, which might be filled with water without damage to the cargo in the rest. The rudder projects from the stern similarly to that of a London barge, and is generally perforated with holes, or built of lattice-work—it is guided by ropes passing from it along each side of the vessel's quarter. The compass is shut up in a small bowl with a quantity of sand in its bottom, in which are stuck perfumed matches when an offering is intended to be made to the "Deity of the Sea." To this divinity, also, an altar, well stored with trinkets, matches, and coloured wax-candles, is erected at the extremity of the cabin, which is very small, and round it are the berths of the crew, just large enough to contain their persons—each berth has a mat and a hard-stuffed cushion for a pillow. They generally embark in great numbers, and all the crew appear to take an equal interest and share in the conducting of the vessel; they do not receive a fixed salary, but have a portion of the profit accruing from the voyage or service performed. All their fluids, water, spirits, &c. are contained in jars, and their solids are packed in cases or pail-shaped tubs, —the Chinese never putting a second head into a cask; whether this arises from ignorance or obstinacy I cannot say, but it is certain that a cask closed at both ends is never seen in China.

VOLCANIC ISLAND OFF THE SOUTH COAST OF SICILY.

MOST of our readers will probably remember the accounts published in the newspapers some time since, of a volcano that suddenly rose from the bosom of the sea, opposite to Sicily, and which, after having attained the size of a considerable island, was rapidly washed away by the waves of the sea from which it rose, and at length totally obliterated.

Through the kindness of John Wright, Esq., an intelligent merchant of Glasgow, who has resided long in Sicily and Naples, we are enabled to give a description of this extraordinary island. Mr. Wright happened to be in Sicily at the time the sub-marine eruption took place, (on the 12th of July, 1831,) and with laudable curiosity determined to repair to the spot. To this end he hired a boat on the 24th of August, (forty-three days after the first appearance of the island,) at Sciacca, on the southern coast of Sicily, which was the town nearest to the volcano, and with an artist, who made drawings on the spot, a physician, and some other Sicilian gentlemen, went in quest of the object that was then exciting so much astonishment and terror.

The party left the shore of Sciacca at nine o'clock in the evening. There was a beautiful bright moon, and they were further favoured by a gentle breeze blowing from land in the direction of the island. After some hours Mr. Wright and his companions went to sleep,

leaving the easy care of the boat to the sailors. They were awakened a little before sunrise by explosions that warned them they were near the volcano, and rising, they saw, at a short distance, two hills surmounted by a column of smoke. The curious island of Pantelleria, which has evidently been thrown up in the same manner by a sub-marine eruption, though it is now inhabited and partially cultivated, was seen in the distance to the west. They calculated that they had sailed about thirty-six miles, and that the new island was about equi-distant from Sciacca and Pantelleria. It had arisen from a sand-bank, which was previously covered (though not with deep water) by the sea, and well known to mariners by the name of "Nerita." This sand-bank itself, which extends for some distance, is probably the result of some anterior volcanic convulsion.

Mr. Wright and his friends proceeded eagerly towards the island, when, just as they were within a few oars' length of it, the sun rose in all his glory behind the dark crater, revealing its form, and shining through the dense smoke with singular effect. They began their examination at the north-west of the volcano, where it presented the form of a round hill, rising about 120 feet above the level of the sea. They were deterred from a close approach by a thick cloud of white smoke which issued from the side of the hill on a level with the sea. They rowed the boat round the island, keeping about twenty feet from it, until they came to the north-east point, where they found that the island was some feet higher than at the part previously examined, and that there was a piece of flat sandy shore which seemed to afford a good landing-place. As, however, nobody had hitherto set foot on this new production of nature, some apprehensions as to the safety of so doing, or whether they would not be swallowed up, were entertained by the Sicilians. After some minutes' of hesitation one of the sailors, encouraged by Mr. Wright, leaped ashore and found tolerably firm footing. Mr. Wright immediately followed him. The sailor, who had proved himself the most adventurous of his comrades, was yet reluctant to go to any distance from the boat, or to ascend the side of the volcano. Mr. Wright advanced a few steps alone, and perceiving some bright yellow stones that had very much the appearance of gold, he picked up some of them, and cried out, "Run! run! my friends! here is gold! here is gold!" This temptation was irresistible—every man left the boat; or, to use the words of one of the Sicilian gentleman of the party, whose memoranda are before us, they "all leaped on shore, like so many devils careless of life, through the avidity to obtain part of the treasure." (Here we may as well remind our readers that the Sicilians and Neapolitans are commonly inclined to believe that volcanoes sometimes throw out gold. In No. 2 of the 'Penny Magazine,' a communication from a correspondent, who was at Naples at the time, informs us that the Neapolitans collected some of the matter ejected by Mount Vesuvius during the great eruption of 1822, expecting to find gold in it.) Mr. Wright's companions were soon undeceived; but finding that they nowhere sank much deeper than the ankle in the sandy soil, they readily followed his example, and climbed up to the ridge of the island at the part where it was lowest. Having reached this point with some difficulty, they stood on the edge of a crater that was flanked on either side by a cone or peak of superior elevation. The form of the crater was very irregular—within it, and forty-five feet below its lip or edge on which they stood, and nearly on a level with the surface of the sea, they saw two small lakes of boiling-water. One of these lakes was about one hundred and fifty feet in circumference, the other not more than thirty. In the first the colour of the water was a light yellow, in the second a reddish-yellow; they bubbled here and there and emitted vapour.

The master of the boat (a Maltese) boldly climbed to the top of the highest cone—an exploit not performed without danger, as on that part the island descended almost perpendicularly to the sea, whose waves had already begun to destroy it, and occasionally carried away large masses at a time.

Mr. Wright and his party returned to the strip of beach where the boat was secured, and were amusing themselves by examining and collecting the curious ashes, lapille, and stones which were there deposited, when a rumbling noise and smoke, accompanied by a most pungent sulphureous smell, arose from the crater, and compelled them to embark. They rowed round to the south-eastern point of the island, where they found a strip of beach like that which they had left, and lying on it, half dead and stupefied, a fine large *pesce-spada*, or sword fish. This they secured and carried back with them to Sciacca, where they found it weighed upwards of sixty pounds English. The fate of the fish must have arisen from its coming too near the hot and contaminated water which on all sides surrounded the island to a greater or less distance. Indeed, when the party started from this point to continue the circumnavigation of the island, they were obliged to keep nearly a mile at sea, to steer clear of a new submarine crater which was forming there, the eruptions from which had changed the colour of the waves from blue to deep yellow, and, for the space of half a mile, made them foam and roar in a fearful manner. Even at the distance at which they kept their boat, the air was so charged with sulphur that it almost suffocated them. As they doubled this, the south-west extremity, they saw immense clouds of smoke, now black, now white, rising as it were from a rent in the bosom of the sea, and attaining an elevation of 2000 feet.

Having gone entirely round the island, they ascertained that its form was circular, and that it was then about two miles in circumference, but evidently diminishing every day. Besides exciting their curiosity, it should seem that the novel appearance of this volcano had attracted the curiosity of a turtle dove, for as they landed to examine one point, a bird of that gentle species saluted them from the summit of the island with its melancholy note, and then disappeared.

On the 27th of October, 1831, the steam-packet "Francesco Primo" left Naples expressly to visit this volcano, which the Neapolitans had named "L'Isola Ferdinanda." Among the passengers was an English gentleman, who made some drawings and measurements, and described the island as it then was. From an examination of these, it results that during only two months which had elapsed since Mr. Wright's visit, the island had been reduced to one-seventh of its circumference as measured at that visit. Peaks and elevations had sunk into the sea,—there only remained one, which was much lowered, and no longer retained the appearance of a volcanic crater. This rose in the centre of the island; it was an irregular cone in shape, and composed of fine, heavy, black sand, and very friable scoriæ. All the rest of the island was a plane whose level scarcely surmounted the superficies of the sea. With the least wind the waves washed over all this level part, which, like the hill, was composed of black sand and scoriæ, mixed here and there with fragments of lava that seemed to contain a good deal of iron. No smoke then issued from any part of the island, but wherever the visitors dug a little in the plain, a strong heat with smoke escaped. There, remained, however, a small lake, the waters of which seemed, from the steam resting on their surface, to be still boiling. These waters had changed their colour from yellow to a brownish black. They were ascertained to be sea-waters, mixed with sulphur and other volcanic components, from which they were easily disengaged. In a direction opposite to this

small lake, and at the distance of a few feet from the shore of the island as it then was, the sea for a certain space was covered with a bright blue oleous fluid, which produced precisely the same tranquillizing effect that oil does when thrown upon the waves. This fluid was, in all probability, *petroleum*, like that which is found floating on the surface of the Bay of Naples, near the roots of Mount Vesuvius, and in the neighbourhood of most volcanos.

The western side of the central mount was covered with volcanic ashes and saline efflorescence, the white colour of which contrasted in a curious manner with the dingy black hue of all the rest of the cone. As the party from the steam-boat ascended the mount, they found two wooden boards stuck deeply in the sand. On the first of these were recorded the names of two members of the French Academy, Messrs. Jonville and Constant Prevot; and on the second the name of an Austrian brig and the name of her commander, who had all visited the island since Mr. Wright's expedition. It was evident to every body that the flat part of the island was rapidly disappearing, and that when the sea had destroyed this, the mount remaining exposed to the direct fury of the waves could not, from the lightness and friability of the materials which composed it, long resist their attack. It was therefore concluded that in a few months the island would no longer exist; and in fact, a very few months afterwards, when Mr. Wright sailed across this part of the Mediterranean, the sea between Sciacca and Pantellaria was perfectly clear, and there remained not the least vestige of the island. He, however, had not the opportunity of examining to what degree the detrition of the volcano had affected the sandbank beneath.

Whichever way the traveller turns on the coasts of Sicily he meets with melancholy evidences of the tremendous effects of volcanic action. The city of Sciacca itself, from which Mr. Wright set out to visit the new volcano, is surrounded by hot springs, petroleum pits, and caverns of sulphur which still smoke; and about five centuries ago it was entirely destroyed by an eruption. Though the town has been renewed, it has never recovered its former prosperity. Its population, which was 60,000 at the time of the awful catastrophe, now scarcely amounts to 18,000.

IMPROVED SYSTEM OF BEE MANAGEMENT.

THERE is no branch of rural economy connected with more agreeable associations than that of bee management. The proverbially industrious habits of the insect, and its extreme ingenuity in the construction of its domicile, and the deposition of its treasures, are such as to excite the admiration of the most unobservant. The common necessity of destroying the stock, in order to obtain the produce of their labours, has been always matter of regret. Many plans have been hitherto devised for the purpose of obtaining the honey without the destruction of the bees, but they have only been attended with partial success. The object has, however, been latterly and more perfectly attained by Mr. Nutt, a practical apiarian of Lincolnshire, whose system of management has given this branch of rural economy an importance and value of which it was not before considered susceptible, both in the greater productiveness of the bees, and the much superior quality of the honey.

The first part of Mr. Nutt's plan of operation is to leave the hive, into which the stock is introduced, untouched. When it is filled with honey (the contents of which are to be reserved for the use of the bees), the capacity of the hive is increased, by the addition of another box to the side, communicating with the hive by apertures, which give free admission to the bees in all parts of the box.

LOUVAIN

The next important object in Mr. Nutt's system is to ensure a regulated and uniform temperature in this portion of the hive, without diminishing the temperature of that which contains the stock. The ventilation necessary for this purpose is effected by the means of a perforated tin tube, extending down to a considerable distance from the top into the hive, and connected with an aperture at the bottom, which may be partly or wholly closed by a tin slide, thus modifying the circulation of the air and consequent degree of temperature. The temperature of this side box, which is indicated by a thermometer introduced into the tube, ought to be 70°, which is the natural temperature of the working hive; but, in that which contains the stock, a temperature of 90° is necessary, as well for the incubation of the queen bee, as the maturity of the young. The parent hive is, then, as well the residence of the queen bee as the nursery of the young, whilst the side boxes are but additional storehouses for the reception of the superfluous honey, which may be taken away without impoverishing the stock, or robbing them of their winter sustenance.

When the thermometer placed in the side box rapidly rises to 90° or 100°, the necessity of again providing the bees with fresh room is indicated; and this is effected by establishing another box on the opposite side of the hive. The bees, finding an increase of room, will readily recommence their labours in this new apartment.

Then follows, in Mr. Nutt's system, the operation of separating the bees from this second hive. This is effected by the ventilator, by which the internal temperature of the hive may be reduced to that of the external atmosphere; and when, on the approach of night, the bees, recoiling from the cool air, go back into the middle box, the connexion between the two may be closed, and the full hive withdrawn, without the imprisonment or destruction of a single labourer. The same arrangements are to be again renewed, as the bees continue their successful labours. In this system no provision is made for swarming, which cannot occur under this arrangement, the emigration of a part of the stock being only occasioned by a want of room in which the bees may pursue their labours.

The honey furnished under this system of management is found to be far superior both in quality and quantity to that obtained under any other arrangements. The honey and wax are as white as refined sugar. This superiority in quality it owes as well to the modified temperature at which the bees secrete their products, as to its total exemption from all extraneous animal and vegetable matters, and, in particular, from the pollen or bee-bread, which is taken in considerable quantities into the stock-hive for the support of the young. This superiority of the honey is only equalled by the quantity of the supply: the usual annual supply from one stock is about one hundred-weight of honey; whilst, in the course of one season, Mr. Nutt has procured the large quantity of 296 lbs. This increase in quantity is owing to the excellent disposition of the arrangements, by which the industrious efforts of the bees are never retarded, nor their strength weakened at the time when the fruits and flowers most abound from which their treasures are obtained.

Thrushes.—A Correspondent mentions that thrushes get at the snails on which they feed by taking them into their beak, and hammering the shells against a stone until they are broken. He states that a neighbour of his brought up a thrush from the nest and kept it many years. It was so tame as to be allowed to fly about the room, when, though it had never seen any other thrush, its chief amusement was to take a silver thimble in its beak, and endeavour, with great earnestness and perseverance, to break it, as the wild bird breaks the shells of snails, by hammering it violently against any hard substance.

LOUVAIN, a town of South Brabant in the Netherlands, is one of those cities which are now greatly declined from their ancient prosperity and importance; but which continue to indicate the difference by very magnificent public buildings, and by an extent which the existing population cannot occupy.

The city makes a very doubtful claim to Julius Cæsar for its founder; but there are no distinct notices of it until the year 885. It is certain, however, that it had attained such great prosperity about the commencement of the fourteenth century, as to be considered the richest and most commercial city of the Low Countries. It then contained upwards of 200,000 inhabitants, including 4000 houses of clothiers. There is a tradition, that when the operatives left their work, it was notified by the great bell, that mothers might withdraw their children from the streets lest they should be trampled to death in the throng of eager passengers. In 1380 the workmen revolted against the Duke of Brabant, and among their acts on that occasion it is recorded that they threw seventeen of the numerous magistrates of the city from the windows of the then existing town-hall. This rebellion led to the emigration of great numbers of the weavers to this country, and they may be considered as having laid the foundation of our woollen manufacture. This affair seems to have given a blow to the prosperity of Louvain which it never entirely recovered. At present the town is much decayed, and the population is not supposed to exceed 25,000. The most important article of industry is beer, of which considerable quantities are annually exported: there are also from ten to twelve lace manufactories.

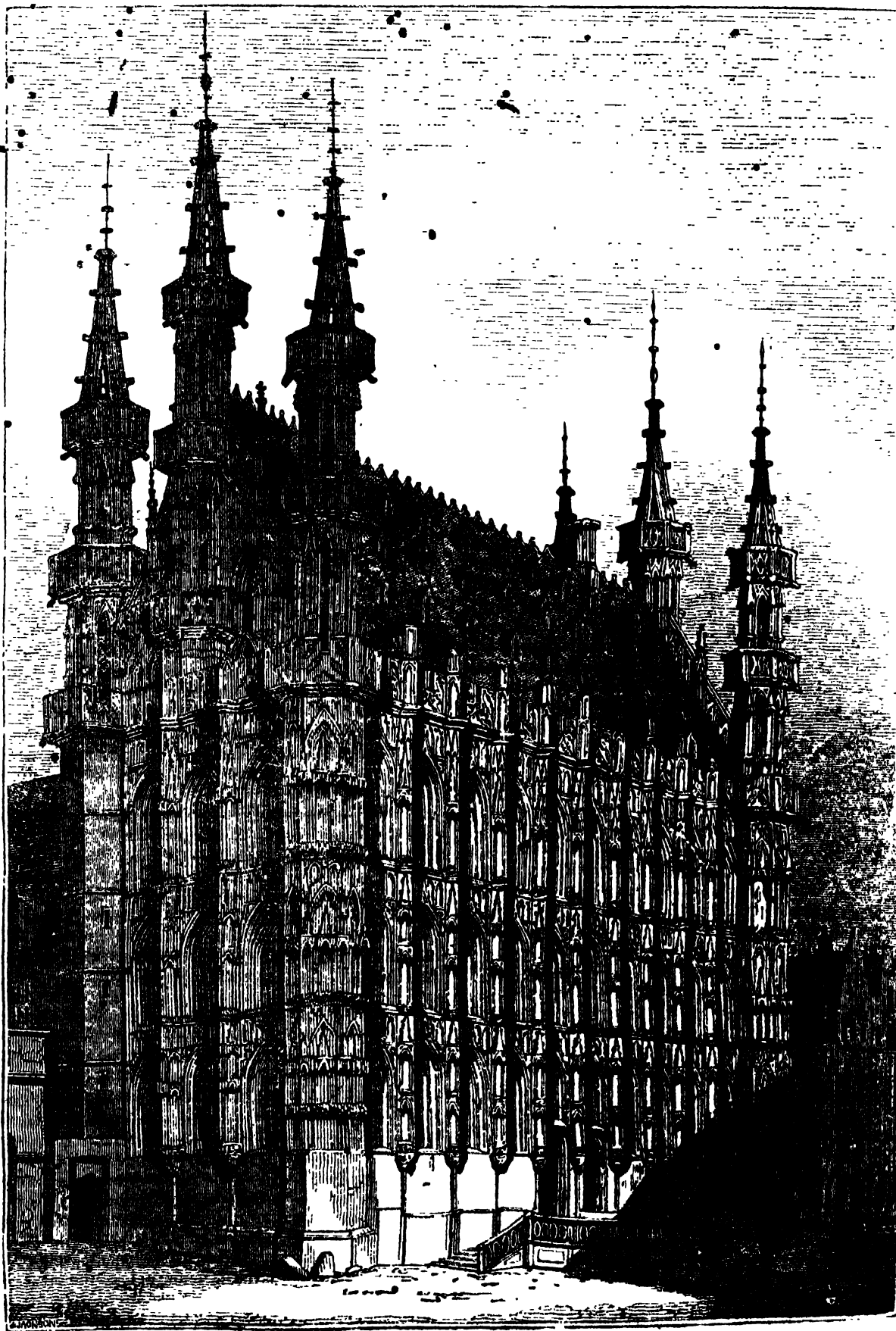
In its prosperous state, Louvain was not only distinguished for its wealth but its learning. The celebrated University was founded, in 1426, by John IV., Duke of Brabant. It produced several eminent men, and was endowed by the Popes with high privileges. It had forty-three colleges, a fine library, a botanical garden, and an anatomical theatre. In the sixteenth century it contained not less than 6000 students. Having become extinct during the French revolution it was restored as a lyceum, and after the separation of Belgium from France was re-established as a university. The present number of students does not exceed 580.

The magnificent building which is represented in our wood-cut was erected in the middle of the fifteenth century. The first stone was laid in 1448, and it was finished in 1463. The cost is stated, in the description of Louvain in the Flemish language, to have been 32,900 guilders, about equal to 3000*l.*—a large sum in those days. The engraving will furnish a more accurate notion of the exterior of this fine town-hall than any description. The three tiers of windows, the gallery above the upper tier, the lofty roof with its windows rising one above another, the corner towers and pinnacles, and the still higher pinnacles of the centre, are the most characteristic features of the edifice. The sculpture of the stone-work is exceedingly rich and elaborate. The apartments within are of fine proportions, and are richly decorated with tapestry and pictures. Altogether the Town-hall of Louvain is one of the most interesting monuments of a period when a large and liberal expenditure upon objects calculated to elevate the taste was thought, and properly so, to be of public utility. While the great ecclesiastical edifices of England and France and the Netherlands were alike constructed with the object of filling the mind with those sublime images which belong to the service of religion, the other public buildings, such as the Town-hall of Louvain, were intended to impress the spectator with a feeling of respect for the dignity of the laws, and to associate ideas of splendour with the seat of justice.

The former commercial prosperity of Louvain justified this display of magnificence in the place where her rich burghers and magistrates arbitrated between contending citizens, and punished the violators of the public peace. It is a monument, therefore, of those times when the rich and powerful inhabitants of great trading towns

were enabled to make displays of wealth and magnificence which might vie with the grandeur of princes;—and by their collective influence and authority, often to resist that oppression which the feudal lords still exercised. Such monuments belong to the history of civilization.

W.H. 10 5/11



[Town-hall of Louvain.]

Curious Time-piece. A Correspondent having seen a notice of the clock of Lubeck, in No. 31 of the 'Penny Magazine,' has been induced to send us an account of a curious time-piece in the possession of a private gentleman at Exeter. It stands ten feet high, is five feet wide, and weighs half a ton. It strikes the hours and quarters, and has a perpetual almanac, which has an exclusive movement for leap year, requiring to be regulated once in 100 years, and the principal wheel of which revolves but once in four years. On a plate in the centre of the dial is seen the sun in his course through the heavens, as he appears to us. The circle which he makes is beautifully described in the changes of the seasons, by the receding or advancing of the horizon as the days lengthen or shorten. Underneath, this is a lunar calendar, exhibiting the moon in her different phases; and an organ playing various tunes. There is also a belfry, in which are six ringers, ringing changes on as many bells; a variety of other figures are also shown in motion, playing instruments, beating time, &c. The ingenious artist, by whom this work was contrived and executed, died poor, and in a workhouse. The piece lay by for many years, no artist being found capable of repairing it, until it lately fell into the hands of a watch and clock maker of Exeter.

Morning Meetings.—The Spaniards have a species of public amusement (though it deserves a far better name), which consists in the superior class of the male inhabitants collecting, between ten and eleven in the forenoon, in some public promenade or open space. In Madrid the favourite place of meeting is the Puerta del Sol; in Toledo, the Zorodover; in Seville, the Plaza de Santo Domingo; and in Granada, the Plaza de Vivarrambila and the Zacatin. These assemblages bear a striking resemblance to the ancient forum and *agora*: the subjects discussed at them are not merely private concerns, but the leading topics of the day; and the groups who take part in the latter, handle the matter in debate with a degree of talent and ardour, as well as unsparing freedom, which, however incredible it may seem, are rarely to be found under any other sky. These morning meetings are so dearly prized by the Spaniard, that I have heard many declare,—and they were men who had visited the gayest capitals in Europe, and were otherwise over-partial, as I conceived, in their estimate of the superiority of foreign countries,—that all the recreations and enjoyments which London, Vienna, and Paris afforded, could not make amends for the loss of the brief matin-hour which they had been accustomed to while away at the Puerta del Sol. But these assemblages carry, intrinsically, far greater weight with them than what appears upon the surface. Any person capable of appreciating the character and bias of the ever-changing crowds which collect, and disperse to collect again, at the Puerta, needs no other key to the course which public affairs are likely to take, and will find himself seldom at fault in his conjectures.—*Journal of Education for January.*

An Election.—(Extract from a private letter from Greece.)—"Before I quitted Athens, I had the opportunity of witnessing the ceremony of a popular assembly, called together for the purpose of electing new Demogerontes. About three hundred Greeks met on a grassplot, in front of a church in the middle of the town; what are called the Archons or Plutocrats, who came into consequence during the days of Turkish sway, placed themselves and their eagle-eyes in the centre of the meeting. After discussing the question, whether the naturalized citizens, or owners of lands and houses who have migrated to this spot from Europe, and other parts of Greece, should be admitted to vote, and deciding it in the negative, they proceeded to debate upon the subject of allowing such citizens and any other strangers to be present on the occasion: and this was determined in the affirmative. A general shout next warned the multitude to lay themselves down on the ground, in order that the successive speakers should be distinctly seen and heard from the post which was assigned to them in the centre of the assembly. One of the citizens then recited an oath, to which every one qualified to vote made solemn response; it was to the effect, that they repudiated the influence of all ties of kindred, bribery, and every other cor-

rupt motive, and pledged themselves that no other consideration should weigh with them in giving their votes, but the public interest. This done, the archons submitted the names of eight or ten candidates, out of whom three were to be elected Demogerontes; and the assembly, as each name was proclaimed, said "content" or "non-content." Where the votes were dubious, the question was decided by a show of hands. But the business did not end without a split; for some of the archons, who were disappointed in carrying the election in favour of their own friends, withdrew in anger from the meeting, and were followed by their adherents. The remainder of the electors, however, went on with the list of candidates until a final choice was made, and then proceeded to the business of voting. Instead of vases, they made use of common glasses, over which a piece of paper with an aperture in it, bearing the candidate's name, had been fastened. These glasses were placed upon a table in the middle of the church, under the safe keeping of three priests; each citizen went into the church singly, had his name recorded in a register, and received three beans, which he deposited in three of the glasses. The latter were ultimately opened, and the beans of each candidate counted; the result being determined by relative majority. By the time that all this had been transacted, afternoon was at hand, and the assembly had dwindled down to one-fourth of its original numbers. You must not be surprised at the injustice, which was done to the *paroks*, or strangers, who form by far the most affluent and well-educated portion of the present inhabitants of Athens, by excluding them from all participation in such proceedings as these. It was the besetting sin of the ancient Greeks, and has descended with increased virulence to the modern, for every one to prefer his native town and its local interests to the welfare not only of any neighbouring town or province, but of his native country."—*Journal of Education for January.*

THIS IS LIFE.

Like to the falling of a star,
Or as the flights of eagles arc,
Or like the fresh spring's gaudy hue,
Or silver drops of morning dew;
Or like a wind that chafes the flood,
Or bubbles which on water stood:
Even such is man, whose borrowed light
Is straight called in, and paid to-night.

The wind blows out, the bubble dies,
The spring entomb'd in autumn lies,
The dew dries up, the star is shot,
The flight is past,—and man forgot.

HENRY KING. Died, 1669.

SITE OF A CONVALESCENT ESTABLISHMENT IN THE HIMALAYA MOUNTAINS.

Among the Europeans in India, the frequent returns home for the recovery of health, which is affected so much by the warm climate of Hindostan, had long been felt as a great public and private inconvenience; and some means by which the necessity might be superseded of yearly invaliding and sending home a large body of soldiers was felt to be a desideratum. Under such circumstances the salubrity and genial temperature of the Nilgherries, (Blue Mountains), one of the principal branches of the western Ghauts, seems first to have suggested the idea of forming establishments in the mountain regions to which the sick and convalescent might repair. Another such establishment has been formed at Laudour, in the Himalaya mountains; and we believe there are others. The result has been found fully to answer the expectations which led to such establishments; and not only has a great waste of time and money been prevented, but the necessity has in a great

measure ceased of exposing the sick to the inconvenience and danger of the long and wearisome voyage from India to England. A correspondent has furnished us with an extract from a letter, written by a medical gentleman from the establishment in the Himalaya, part of which we shall lay before our readers. It does not state much concerning the establishments formed there, but it furnishes information with regard to a region of which little is known in this country, and not much even in India.

"The place from whence I write is the first range of the grand chain of the Himalaya. It is in about $86^{\circ} 27'$ north latitude and 78° east longitude. It was selected about three years since*, from its proximity to the plains, (seven miles off,) as the most eligible site for a convalescent depôt; and experience having already established its sanative character, so that every spot of ground capable of building upon is taken up for public buildings. These salubrious and delightful hills had been fourteen years in the possession of the British government before the beneficial purposes to which they were applicable appear to have been perceived. The summit of Landour is about 7800 feet above the level of the sea; and, of course, every modification of climate from this height to the highest peak, 27,000 feet, may be found; but I shall more particularly speak of what I have myself experienced.

"During the hottest season, which is just passed, the thermometer has never exceeded 67° , whereas, in the plains, it is rarely under 90° , in a good house, until October. The mean temperature here, by meteorological observation, is said to be 50° ; and, as there are so few degrees of variation in the different seasons, I should say it is the finest climate in the world for invalids of every class. About 200 soldiers are annually sent hither from the different king's regiments; the greatest proportion of whom recover.

"As a further proof of the benignity of this climate, may be adduced an abundance of every kind of game, such as woodcocks, partridges, pheasants, &c., all of the most splendid plumage, at the bottom of the dells, together with a great variety of deer, leopards, hyenas and bears, whilst the tiger is very rarely seen. All the European fruits thrive to great perfection; and very many of them, as the apricot, currant, raspberry, &c., grow wild. A botanical garden promises well, even in its infancy; and the gentleman in charge of it states, that all the plants indigenous to temperate climates thrive exceedingly well. Much to my surprise, these almost perpendicular mountains are highly cultivated, and, where irrigation is practicable, rice, beans, peas, potatoes, and every kind of corn, are seen to flourish. The effect is very beautiful at a distance; and the eye is in every direction relieved by groups of magnificent oak, walnut, and fir-trees; and, though last, not least to be admired, the rhododendron.

"The male inhabitants of this region are a good-looking race, but the women are perfectly hideous; and, as ablution is an operation not often performed in the course of a life, their persons are very offensive from filth and vermin. But as a contrast to these disgusting circumstances, they are a lively merry people, and suffer hardships and fatigue without a murmur; nor are theft or murder known among them. I have remarked goitres to be a very common disease, as it is, I believe, in all mountainous countries, particularly Switzerland and the Tyrol†.

"The roads are mere footpaths in those regions, and

* The letter is dated July 13, 1830.

† Some of our readers may need to be informed that goitres are swellings or wens in the fore part of the throat, which are not incompatible with generally good health. They are very prevalent among mountaineers; and the cause is still undiscovered, though commonly attributed to the water which the people drink.

quite frightful to a person unaccustomed to mountain travelling. But the eye soon gets accustomed to such circumstances, and I now gallop about on my gaunt (hill pony) with as much confidence as I do on a horse in the plains. These animals are brought from Tataria, and resemble the Shetland ponies, but show a great deal more blood and symmetry. They are amazingly sagacious, and so conscious that a false step would lead them to destruction, that they manifest the utmost caution in difficult places; and the traveller is quite at the mercy of his little quadruped, and must not interfere with him. An accident happens occasionally, but no life has been lost since the establishment commenced; which I account for by the circumstance that the beast always inclines towards the bank when he slips.

"The periodical rains have now regularly set in, and will, as I am informed, continue until September. We have sometimes terrific thunder-storms with hail; and in such a storm, a short time since, three of the natives were killed by the lightning. The weather is disagreeably damp; but the thermometer continues steady at 67° , and never exceeds 80° ,—an equality of temperature not to be surpassed in any part of the world."

THE NEWFOUNDLAND DOG.

THIS powerful, intelligent, and docile animal, which in its unmixed state is certainly the noblest of the canis tribe, is a native of the country the name of which it bears, and may be considered as a distinct race. Its introduction into this country is of comparatively recent date; and the fine animal known to us by the name of Newfoundland dog is only half-bred, and of size inferior to the dog in its native state, when it measures about six feet and a half from the nose to the extremity of the tail, the length of which is two feet. In its own country it only barks when greatly irritated, and then with a manifestly painful effort, producing a sound which is described as particularly harsh. Its exemption from hydrophobia in Newfoundland appears to be well authenticated.

The dog is employed by the settlers as a beast of burthen in drawing wood from the interior to the coast. Three or four of them yoked to a sledge will draw two or three hundred weight of wood with great facility for several miles. In this service they are said to be so sagacious and willing as to need no driver or guide; but, having delivered their burden, return without delay to the woods in the expectation of receiving some food in recompense for their labour. We see, indeed, in this country, that, from the activity of his disposition, the Newfoundland dog delights in being employed; and the pride of being useful makes him take uncommon pleasure in carrying in his mouth for miles baskets and other articles, of which, as well from that satisfaction as from the fidelity of his character, it would be dangerous for a stranger to dispute possession with him. In many respects he may be considered as a valuable substitute for the mastiff as a house dog.

The Newfoundland dog is easily satisfied in his food. He is fond of fish, whether fresh or dried; and salt meat or fish is more acceptable to him than to most other animals, as well as boiled potatoes and cabbage. When hungry, however, he has not very strong scruples about appropriating such flesh or fish as falls in his way, or even of destroying poultry or sheep. For the blood of the latter animal he has much appetite, and sucks it from the throat without feeding on the carcass.

It is well known that the Newfoundland dog can swim very fast, dive with ease, and bring things up from the bottom of the water. Other dogs can swim,

but not so willingly, or so well. This superiority he owes to the structure of the foot, which is semi-webbed between the toes; thus presenting an extended surface to press away the water from behind, and then collapsing when it is drawn forward, previous to making the stroke. This property, joined to much courage, and a generous disposition, enables this dog to render those important services in the preservation of endangered life, of which such numerous instances are recorded, and of which our engraving affords an illustration.

The following anecdotes of the Newfoundland dog are taken from Captain Brown's interesting 'Anecdotes of Dogs.'

"A Newfoundland dog, kept at the ferry-house at Worcester, was famous for having, at different periods, saved three persons from drowning; and so fond was he of the water, that he seemed to consider any disinclination for it in other dogs as an insult on the species. If a dog was left on the bank by its master, and, in the idea that it would be obliged to follow the boat across the river, which is but narrow, stood yelping at the bottom of the steps, unwilling to take the water, the Newfoundland veteran would go down to him, and with a satirical growl, as if in mockery, take him by the back of the neck and throw him into the stream."

"A native of Germany, fond of travelling, was pursuing his course through Holland, accompanied by a large Newfoundland dog. Walking one evening on a high bank, which formed one side of a dike, or canal, so common in that country, his foot slipped, and he was precipitated into the water, and, being unable to swim, he soon became senseless. When he recovered his recollection, he found himself in a cottage on the opposite

side of the dike to that from which he had fallen, surrounded by peasants, who had been using the means so generally practised in that country for restoring animation. The account given by the peasants was, that one of them returning home from his labour, observed, at a considerable distance, a large dog in the water swimming and dragging, and sometimes pushing, something which he seemed to have great difficulty in supporting, but which he at length succeeded in getting into a small creek on the opposite side to that on which the men were.

"When the animal had pulled what he had hitherto supported, as far out of the water as he was able, the peasant discovered that it was the body of a man. The dog, having shaken himself, began industriously to lick the hands and face of his master, while the rustic hastened across; and, having obtained assistance, the body was conveyed to a neighbouring house, where the usual means of resuscitation soon restored him to sense and recollection. Two very considerable bruises, with the marks of teeth, appeared, one on his shoulder, the other on the nape of the neck; whence it was presumed that the faithful animal first seized his master by the shoulder, and swam with him in this manner for some time; but that his sagacity had prompted him to let go his hold, and shift his grasp to the neck, by which he had been enabled to support the head out of the water. It was in the latter position that the peasant observed the dog making his way along the dike, which it appeared he had done for a distance of nearly a quarter of a mile. It is therefore probable that this gentleman owed his life as much to the sagacity as to the fidelity of his dog."



[Newfoundland Dog.]

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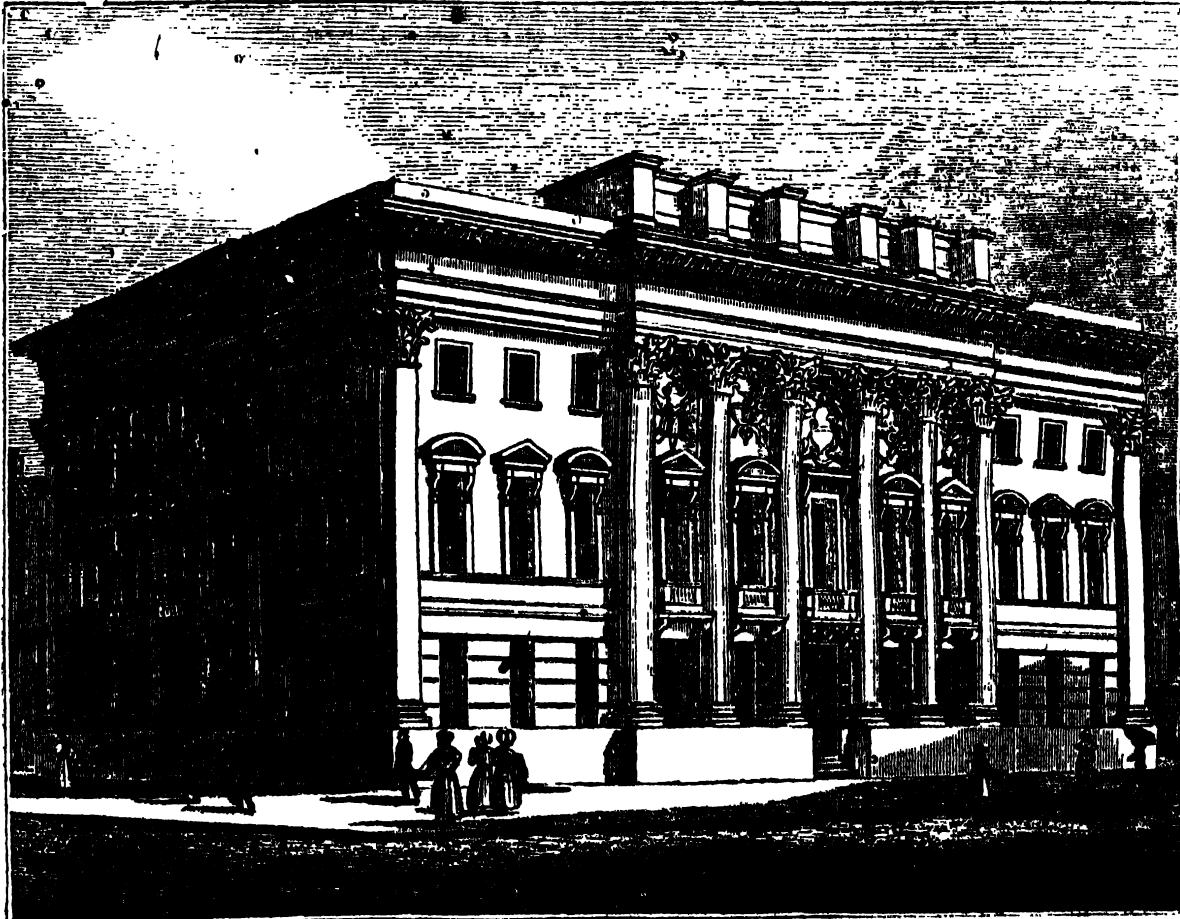
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GOLDSMITHS' HALL.



[View of Goldsmiths' Hall.]

THE Goldsmiths' Company is one of the most ancient of the London Guilds, or associated crafts. It appears, indeed, to have originated before the time when charters of incorporations began to be granted to such societies by our kings. In the year 1180, in the reign of Henry II., it is recorded to have been one of those that were fined as *adulterine* companies, that is, companies that had no royal charter or licence; and it may have existed in this state for a considerable period. It would seem already to have been a wealthy and important association, if we may judge by the amount of the fine imposed upon it, which was forty-five marks, while from most of the others only one mark was exacted. Of the present London companies, that of the Goldsmiths' ranks fifth in the order of precedence, the first four being those of the Mercers, Grocers, Drapers, and Fishmongers. None of these, however, have royal charters so ancient as the earliest by which the Goldsmiths' Company was incorporated. This was granted by Edward III. in 1327; and subsequent charters, confirming and extending the privileges then conferred, were obtained in 1394 from Richard II., and in 1462 from Edward IV.

Even before they were thus regularly incorporated, however, the Goldsmiths had apparently taken their place as one of the leading trades of the city. We have a curious evidence of this in an incident which the old

chronicler Fabyan relates as having happened in the year 1269, in the reign of Henry III. We shall give the statement in the modernized version of Maitland, the historian of London:—"About the same time a great difference happened between the Company of Goldsmiths and that of the Merchant Tailors'; and other companies interesting themselves on each side, the animosity increased to such a degree that, on a certain night, both parties met (it seems by consent) to the number of 500 men, completely armed; when, fiercely engaging, several were killed, and many wounded, on both sides; and they continued fighting in an obstinate and desperate manner, till the sheriffs raised a great body of citizens, suppressed the riot, and apprehended many of the combatants, who were soon after tried by the mayor, and Laurence de Brooke, one of the king's justices; and thirteen of the ringleaders being found guilty, they were condemned and hanged."

Here we find, while the Merchant Tailors lead the one faction, the Goldsmiths are at the head of the other. The early opulence and consequence of the latter were in great part acquired by their practice of acting as bankers, which they did in this and other countries long before any regular banks were established. They served both to individuals and to the government as agents in the transference of bullion and coin, in making payments and obtaining loans, and in

the safe preservation and custody of treasure. From a notice which Malcolm has preserved in his 'Londinium Redivivum,' vol. ii., p. 414, it would appear that the practice of banking had been continued by the goldsmiths in London down to a very recent period. The passage is extracted from 'A General Description of All Trades,' published in 1747, and contains the following statement: "Goldsmiths, the fifth company, are, strictly speaking, all those who make it their business to work up, and deal in, all sorts of wrought gold and silver plate; but, of late years, the title of Goldsmith has been generally taken to signify one who banks or receives, and pays running cash for others, as well as deals in plate; but he whose business is altogether cash-keeping is properly a Banker, who seldom takes apprentices, but has his business done chiefly by clerks. The others who keep to plate only, and do not bank, are distinguished by the name of Silversmiths; who are two-fold,—the working silversmiths, who make up as well as sell (though some of them do not sell at all),—and the shopkeepers, many of whom do nothing at the working part." The distinction here mentioned as having been made between the Goldsmiths and the Silversmiths (which, we believe, is now obsolete) can only have been a popular mode of expression, by which the principal persons in the trade were marked out from the rest. It was the former only, we may suppose, who acted as bankers; but it is certain that this custom was not, as the writer seems to intimate, one of recent introduction, though perhaps it might have been revived about the time to which he refers after having fallen into disuse.

In England the mystery of working in gold and silver has not, perhaps, been usually considered to be so closely allied to the fine arts as it is or was wont to be in Italy and some other foreign countries. Some of the most eminent of the Italian painters and sculptors, Benvenuto Cellini, for instance, for one, were originally goldsmiths; and acquired their first acquaintance with the arts of design in chasing the precious metals.

In ancient times the goldsmiths of London resided in or near Cheapside, or, as it was then often called, West Cheap, to distinguish it from the other Cheap (that is, Market) Street, more to the east. The Royal Exchange, where all bullion was received for the king's coinagers, was in a street in this vicinity, which still bears the name of the Old Exchange. It runs down towards the river from the west end of Cheapside; "but the very housing and office of the exchange and coinage," says Maitland, "were about the midst thereof, south from the east gate that entereth St. Paul's churchyard, and on the west side."

It appears to have been thought, indeed, that no other persons except goldsmiths had a right to reside, or at least to open shops, in this vicinity. Maitland quotes a representation addressed by the company to Edward III., in the first year of his reign (1327), in which we find this stated along with several other curious particulars respecting those times. It would scarcely, perhaps, have been suspected by many of our readers, that the substitution of pastes for precious stones, and of plated wares for genuine metal, with other similar tricks, had been carried to such perfection by the artists of the early part of the fourteenth century, as they would seem to have been by the following extract from this representation:—"That no private merchant nor stranger heretofore were wont to bring into this land any money coined, but plate of silver to exchange for our coin. And that it had been also obtained that all who were of the goldsmiths' trade were to sit in their shops in the High Street of Cheap; and that no silver in plate, nor vessel of gold or silver, ought to be sold in the city of London, except at or in the Exchange, or in Cheapside among the goldsmiths,

and that publicly; to the end that the people of the said trade might inform themselves whether the seller came lawfully by such vessel or not. But that now—many of the said trade of goldsmiths kept shops in obscure turnings, and by-lanes and streets, and did buy vessels of gold and silver secretly, without enquiring whether such vessel were stolen or lawfully come by; and, immediately melting it down, did make it into plate, and sell it to merchants trading beyond sea, that it might be exported. And so they made false work of gold and silver, as bracelets, lockets, rings, and other jewels; in which they set glass of divers colours, counterfeiting right stones, and put more alloy in the silver than they ought, which they sold to such as had no skill in such things. And that the cutlers in their work-houses covered tin with silver, so subtilly, and with such slight, that the same could not be discerned and severed from the tin; and by that means they sold the tin so covered for fine silver, to the great damage and deceit of the king and his people."

Upon this petition order was taken for remedying the several evils complained of; and among other things it was commanded that none that pretended to be goldsmiths "should keep any shops but in Cheapside, that it might be seen that their works were good and right." For a long time this regulation was rigidly enforced, so that Cheapside presented a very gay appearance. Maitland eulogizes in a strain of fond admiration, "the most beautiful frame and front of fair houses and shops that were within the walls of London or elsewhere in England, commonly called Goldsmiths' Row, betwixt Bread Street end and the Cross in Cheap." This cross stood at the west end of Cheapside, in the middle of the open space, from which St. Martin le Grand branches out on the one hand and St. Paul's Church Yard on the other. It was one of those erected in 1290, by Edward I., in memory of Queen Eleanor, at the different places where her coffin had rested on its way from Herdeley in Lincolnshire, to Westminster—this and that at Charing being the two last of the number. With regard to Goldsmiths' Row the historian continues:—"The same was built by Thomas Wood, goldsmith, one of the sheriffs of London in the year 1491. It contained in number ten dwelling-houses and fourteen shops, all in one frame, uniformly built, four stories high, beautified towards the street with the Goldsmiths' Arms, and the likeness of woodmen, in memory of his name, riding on monstrous beasts, all which were cast in lead, richly painted over and gilt. The said front was again new painted and gilt over in the year 1594, Sir Richard Martin being then mayor, and keeping his mayoralty in one of them." In course of time, however, a few other tradesmen ventured to invade the privileged district. Under the year 1629, Maitland writes:—"At this time the city greatly abounded in riches and splendour, such as former ages were unacquainted with: then it was beautiful to behold the glorious appearance of goldsmiths' shops in the South Row of Cheapside, which in a continued course reached from the Old Change to Bucklersbury, exclusive of four shops only of other trades in all that space; which occasioned the privy council, on the 18th of November, to make the following order:—"Forasmuch as his majesty hath received information of the unseemliness and deformity appearing in Cheapside, by reason that divers men of mean trades have shops amongst the goldsmiths; which disorder it is his majesty's express pleasure to have reformed;—it was therefore thought fit, and accordingly ordered, that the two Lord Chief Justices, with such other judges as they shall think meet to call unto them, shall consider what statutes or laws there are to enforce the goldsmiths to plant themselves for the use of their trade in Cheapside and Lombard Street, and the parts adjacent, and thereupon

return certificate to the board in writing with all convenient expedition."

It may be suspected that the government, in manifesting all this solicitude to keep the goldsmiths collected in one particular part of the city, had some object beyond what was avowed. Those wealthy citizens, with whom, in addition to their own valuable stocks, was deposited so large an amount of property belonging to other persons, were probably looked upon as the readiest and most natural resource from whence to obtain a supply of money in case of any emergency that might arise; and their services, whether in the case of a loan or an exaction, would obviously be made the more available by keeping them together and preventing any of them from concealing themselves in obscure parts of the city. Accordingly, we find that when ship-money was imposed in 1635, one of the first steps taken by the government was to renew the prohibition against the dispersion of the goldsmiths. It ought not to be forgotten that a considerable time before Hampden made his memorable stand against this impost, a citizen of London, a merchant of the name of William Chambers, allowed himself to be thrown into prison rather than pay it, and would have tried the question of its legality in a court of law in an action against the lord mayor, by whom he had been committed, if the judges had not refused to allow his counsel to touch upon that point. Nowhere, indeed, did the tax experience more resistance than in London. The most peremptory orders were in consequence sent to the magistrates by the Privy Council to take the necessary measures for the collection of the assessment with all expedition. In some of these edicts it was especially commanded that the goldsmiths should be looked after. One dated the 24th of May, 1637, proceeded as follows:—"Whereas by our letters of the 15th of July and last of January, 1635, we did not only take notice of the present remissness and backwardness of the then lord mayor and aldermen, in seeing our directions, by his Majesty's express command, forthwith put into execution, by bringing the goldsmiths, living dispersed in the city, to seat themselves either in Cheapside or Lombard Street; for which purpose we required that all other tradesmen should be removed, and give place unto them; but if they should obstinately refuse and remain refractory, then to take security of them to perform the same by a certain day, or, in default of giving such security, to commit them to prison until they conform themselves; notwithstanding all which, his Majesty has been informed that there are yet a great number of houses of other several trades that live both in Cheapside and Lombard Street. We must let your lordship know that, if speedy and effectual care be not taken by you in seeing the same duly performed, his Majesty will not pass it by without calling you to an account for it." All shops not belonging to goldsmiths that had been opened since the said letters in Cheapside or Lombard Street are then ordered to be presently shut up, and not permitted to be opened till further order from the Board. Another order, however, from the Star Chamber, dated the 7th of July, mentions that "divers tradesmen, which are not goldsmiths, do contemptuously open again their shops both in Cheapside and Lombard Street, though they kept them for a while shut;" in consequence of which it is declared that, if every such shop shall not forthwith be shut up in each ward, the alderman or his deputy shall be committed to prison by warrant from the Board. But even this threat did not produce the desired effect. In another letter from the Privy Council to the next lord mayor, dated the 12th of January, 1638, complaint is made that there are still in the two streets "at the least four and twenty houses that are not inhabited by goldsmiths; but in some of them are one Grove, and

one widow Hill, stationers; one Dover, a milliner; and one Brown, a handseller; one Sanders, a druggster; and one Medcalf, a cook; and one Edwards, a girdler, who do, by connivance, still inhabit there, having some part of their shops shut, and the rest open." The council, thereupon, in somewhat more civil language than had been before employed, pray and require the mayor to acquaint the aldermen with these facts; adding, "if they do not presently put our former directions in that particular in execution, we shall then give such further order as shall teach them to know that the commands of this Board ought not to be slighted." The troubles, however, which soon after followed, occasioning the overthrow and abolition of the Star Chamber, the privy council, and the throne itself, put an end for ever to these arbitrary and oppressive interferences; and since then Cheapside and Lombard Street have been as open as any other part of London to tradesmen of all descriptions, and the goldsmiths, deserting for the most part their ancient houses, have dispersed themselves over the town, and opened their shops wherever they pleased.

The Goldsmiths' Company, as is well known, have the privilege of assaying all gold and silver plate before it can be exposed for sale. This office they were appointed to exercise by the letters patent of Edward III., already quoted; but not for the first time, for it is there commanded that all work, ascertained to be of the proper fineness, shall have upon it "a stamp of a puncheon with a leopard's head, as of ancient time it hath been ordained."

Another duty which the Goldsmiths' Company are called upon to perform is, to assist at what is called "the trial of the pix,"—that is, the examination of the coinage, with the view of ascertaining whether it is of the sterling weight and purity. The pix (from the Latin pyxis) is the box in which the coins to be weighed and analyzed are contained. A very full account of the ceremonies observed on this occasion may be found in Mr. Brayley's 'Londiniana,' vol. iv., p. 142—148. The jury of Goldsmiths summoned usually consists of twenty-five, and they meet in a vaulted chamber on the east side of the cloisters at Westminster, called the Chapel of the Pix.

Our engraving presents a view of the handsome new Hall of this company, recently erected. It stands immediately behind the New Post-Office. The style is what is called the Italian; and the front of the building, which looks to the west, is adorned with six Corinthian columns, over which is a rich entablature of the same order. It is built of Portland stone, and is 159 feet in length by 100 in breadth. It is considerably larger than the old hall, which stood upon the same site, and was taken down in 1829. The principal apartment, called the Court Room, in the former building, was celebrated for the richness of its ornaments of various kinds, and especially for a sculptured marble chimney-piece of great magnificence, with a massive bronze grate, which latter article alone is said to have cost, many years ago, above a hundred pounds. There were also some good pictures; among others, an excellent one of Sir Hugh Middleton, the patriotic projector of the New River. The old hall was built a short time after the Great Fire.

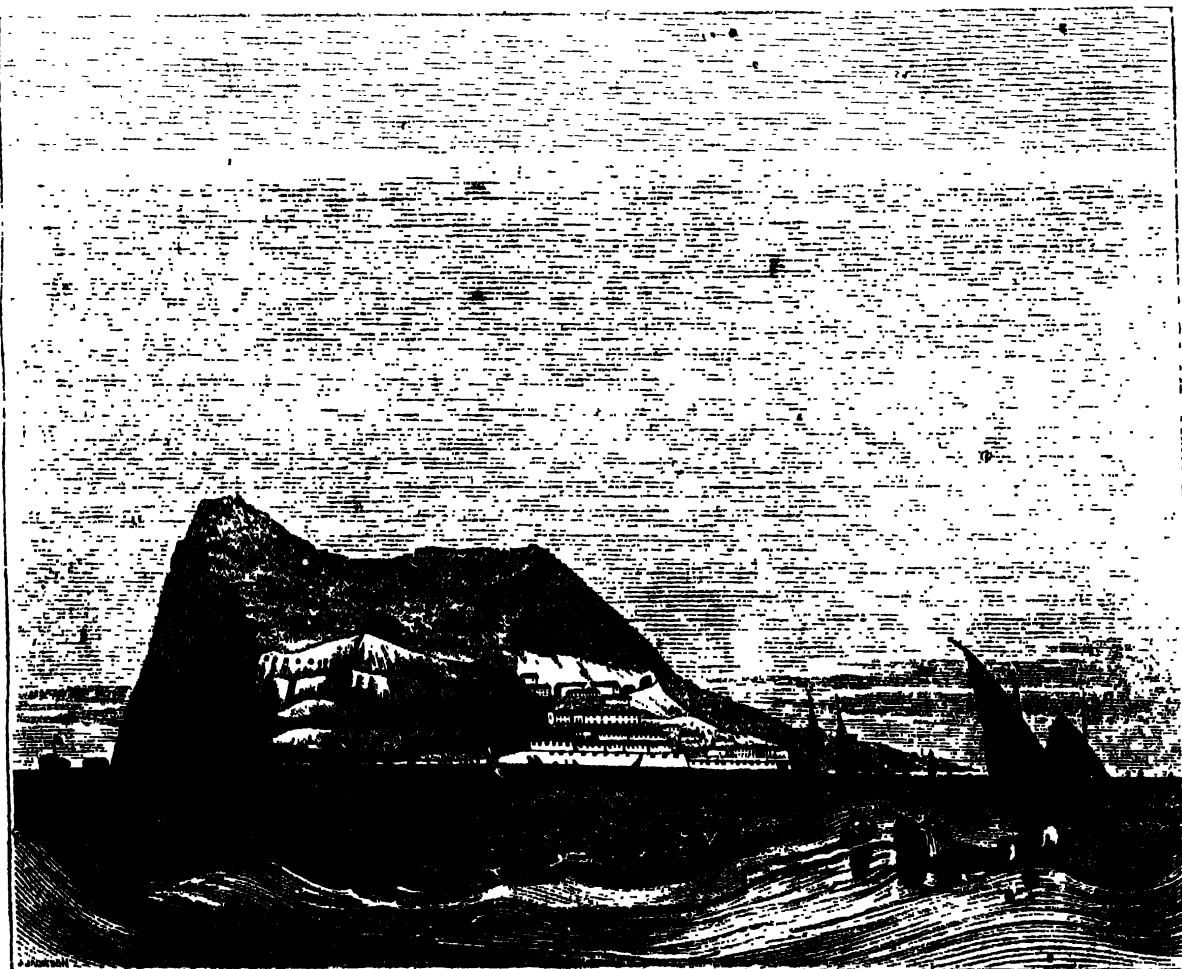
GIBRALTAR.

THE remarkable circumstance of such a position, one of the keys to a great kingdom, being held in permanent possession by a foreign nation, would alone confer no little interest upon Gibraltar. If we, in England, saw a fortress tenanted by Frenchmen or Spaniards frowning over the surrounding land and sea from the Bill of Portland, we should think it bad enough. Yet this would be nothing to the case of the English occu-

pation of Gibraltar. That promontory, besides its admirable advantages as a place of strength, may be said, owing to the narrowness of the strait upon which it juts out, to command, not merely the corner of Andalusia immediately under it, but the whole of the western coast of Spain, comprising nearly two-thirds of the whole maritime circumference of that country. It effectually cuts off all communication by sea between that part of Spain which is bounded by the Mediterranean and those parts which are bounded by the Atlantic. It disables that power as much as England would be disabled by another nation having the ability to hinder a ship passing from Liverpool, or Belfast, or Dublin, or Cork, or Plymouth, to Leith, or Hull, or London.

It appears, however, to have been late before the importance of this rock was discovered. The ancients had

a fable that Europe and Africa were originally joined at this point, and that the two continents were given asunder by Hercules, and a passage thereby opened between the Atlantic and the Mediterranean. Gibraltar, under the name of Calpe, and Mount Abyla opposite to it on the African coast, were called the Pillars of Hercules, and appear to have been in very early ages regarded by the people dwelling to the east of them, including the Carthaginians, the Greeks, and the Romans, as the western boundary of the world. It was probably long before navigation penetrated beyond this limit. Even in after-times, however, when Spain became well known to the Romans and a province of their empire, we do not read of any fort being erected on the rock of Calpe. It is doubtful if it was even the site of a town. No Roman antiquities have ever been found on the spot or in the neighbourhood.



[The Rock of Gibraltar.]

The place appears to have been first seized upon and converted into a military station by the Moors when they invaded Spain in the beginning of the eighth century. From their leader, Tarif, it was in consequence called Gibel-Tarif, or the Mountain of Tarif, of which Arabic name Gibraltar is a corruption. Soon after establishing themselves here, the Moors erected a lofty and extensive castle on the north-west side of the mountain, the ruins of which still remain. Gibraltar continued in the possession of the Moors for between seven and eight centuries, with the exception of about thirty years, during which it was held by the Christians, having been taken soon after the commencement of the fourteenth century by Ferdinand, king of Castile. It was recovered, however, in 1333, by Abomelek, the son of the emperor of Fez, and the Moors were not finally dispossessed of it till the middle of the following century. After that it remained a part of the kingdom of Spain, down nearly to our own times.

The promontory of Gibraltar forms the south-western extremity of the province of Andalusia, running out into the sea in nearly a due south direction for about three miles. The greater part of this tongue consists of a very lofty rock. It rises abruptly from the land to the height of fully 1300 feet, presenting a face almost perfectly perpendicular, and being consequently from that, its northern extremity, completely inaccessible. The west side, however, and the southern extremity, consist each of a series of precipices or declivities, which admit of being ascended. The town, now containing a population of above 17,000 persons, is built on the west side. Along the summit of the mountain, from north to south, runs a bristling ridge of rocks, forming a rugged and undulating line against the sky when viewed from the east or west. The whole of the western breast of the promontory is nearly covered with fortifications. Anciently, it is said, it used to be well wooded in many places; but there are now very few trees to be seen,

although a good many gardens are scattered up and down both in the town and among the fortifications. A great part of the rock is hollowed out into caverns, some of which are of magnificent dimensions, especially one called St. George's Cave, at the southern point, which although having only an opening of five feet, expands into an apartment of two hundred feet in length by ninety in breadth, from the lofty roof of which descend numerous stalactitical pillars, giving it the appearance of a gothic cathedral. These caves seem to have been the chief thing for which Gibraltar was remarkable among the ancients. They are mentioned by the Roman geographer, Pomponius Mela, who wrote about the middle of the first century of our era. The southern termination of the rock of Gibraltar is called Europe Point, and has been sometimes spoken of as the termination in that direction of the European continent; but Tarifa Point, to the west of Gibraltar, is fully five miles farther south.

It is impossible for us here to attempt any description of the fortifications which now cover so great a part of this celebrated promontory. Gibraltar was first fortified in the modern style by the German engineer, Da-

niel Speckel, at the command of the emperor Charles V. towards the close of the sixteenth century. But little of what was then erected probably now remains. Since the place fell into the possession of the English, no expense has been spared to turn its natural advantages to the best account, and additions have repeatedly been made to the old fortifications on the most extensive scale. It is, now, without doubt, the most complete fortress in the world.

More than half a century ago Gibraltar was accounted by military men almost impregnable. "No power whatever," says Colonel James in his History of the Herculean Straits, published in 1771, "can take that place, unless a plague, pestilence, famine, or the want of ordnance, musketry, and ammunition, or some unforeseen stroke of Providence, should happen." It is certainly now much stronger than it was then. One improvement which has especially added to its security is the formation of numerous covered galleries excavated in the rock, with embrasures for firing down upon both the isthmus and the bay. The interior of part of these works is represented in the annexed wood-cut.

Gibraltar was taken by an English fleet, under the



[Interior of the Rock of Gibraltar.]

command of Sir George Rooke and the Prince of Hesse Darmstadt, in July, 1704. The project of the attack was very suddenly formed at a council of war held on board the admiral's ship, while the fleet was cruising in the Mediterranean, and it was apprehended that it would be obliged to return to England without having performed any exploit commensurate to the expectations with which it had been fitted out. The affair proved a very easy one; the garrison, which consisted of one hundred and fifty men, having surrendered after a bombardment of only a few hours. The assailants lost only sixty lives, the greater part by a mine which was sprung after they had effected a landing. In the latter part of the same year a most resolute effort was made to recover the place by the combined forces of France and Spain, which failed after it had been persevered in for several

months, and had cost the besiegers not less than 10,000 men. The loss of the garrison was about 400.

At the Peace of Utrecht, in 1713, the possession of Gibraltar was confirmed to England. In 1727, however, another attempt, on a formidable scale, was made by Spain to dislodge the foreigners. An army of 20,000 men having encamped in the neighbourhood, the attack was commenced in February and continued till the 12th of May, when it was put an end to by the general peace. In this siege the garrison lost 300 in killed and wounded; but the loss of the besiegers was not less than 3000. The guns in the fortifications, it is worthy of remark, proved so bad, that seventy cannons and thirty mortars burst in the course of the firing.

But the most memorable of all the sieges of Gibraltar was the last, which commenced in 1779, and did not

terminate till it had been continued for more than three years. Of this remarkable siege an excellent and interesting account has been given by Captain John Drinkwater, who was present in the beleaguered fortress during the whole time. England was engaged in sustaining the contest with her revolted colonies in America, when hostilities were also commenced against her, first by France and some time after by Spain. There is no doubt that, whatever were her professions, the latter power took up arms merely with the object of recovering Gibraltar. The Spanish ambassador having announced the intentions of his Court, in London, on the 16th of June, 1779, on the 21st of the same month all communication between Gibraltar and the surrounding country was closed by command of the government of Madrid. It was the middle of the following month, however, before the Spaniards began to block up the fort. Fortunately, in the early part of this year, General George Augustus Eliot, who had been recently appointed Governor, had arrived in the fort, and brought to the crisis that was approaching the aid of his great military science and talents, as well as of some of the highest moral qualities that ever adorned the soldier or the man. General Eliot, who was the ninth and youngest son of Sir Gilbert Eliot of Stobbs, in Roxburghshire, was at this time about sixty years of age, more than forty of which he had spent in the service of his country. Another fortunate circumstance was that a supply of provisions had arrived in the preceding April. Had it not been for this, the garrison might have suffered terribly from the sudden stoppage of their accustomed intercourse both with Spain and with Africa.

The first firing which took place was on the 12th of September, when a cannonade was opened from the fort which destroyed the works that the besiegers had spent many of the preceding weeks in erecting. The blockade, notwithstanding, became every day closer; and the occasional boats, which had for some time stolen in from the African coast and other places, at length found it impossible to continue their attempts. By the end of October provisions had become extremely dear. About the same time, too, the small-pox broke out among the Jewish inhabitants of the town, and every precaution had to be used to prevent the spread of the disease. In November, the Governor, in order to try on how little food life and strength could be sustained, restricted himself for eight days to four ounces of rice per day. Thistles, dandelions, wild leeks, &c., began to be eaten by the people of the town—and meat sold from half-a-crown to four shillings the pound.

The first firing from the besiegers took place on the 12th of January, 1780; and the first person wounded in the fort was a woman. By the end of March the first supply of provisions arrived, brought in by the gallant Admiral Rodney, who had not only cut his way to the assistance of his distressed countryman through all the opposition of the enemy, but had captured six of their men-of-war, including a sixty-four gun-ship with the admiral on board, together with seventeen merchantmen. His present majesty, then known as Prince William Henry, was serving on board one of Sir George Rodney's ships as a midshipman, and often visited the garrison while the fleet remained in the bay. Captain Drinkwater relates that, on seeing a prince of the blood thus serving as a warrant-officer, the captive Spanish Admiral exclaimed that Great Britain well deserved the empire of the seas, when even her kings' sons were found thus holding the humblest situations on board her ships.

For a good many months after this, things continued in nearly the same state. The garrison and townspeople were again and again reduced to the greatest privations by scarcity of provisions before sup-

plies arrived. In the spring of 1781, the besiegers at last opened their batteries, and continued firing upon the town till they had completely destroyed it. On the 27th of April, however, a most gallant exploit was performed by a party from the garrison, who, making a sortie from their fortifications, succeeded in setting fire to, and reducing to ashes, all the erections of the enemy, although distant not less than three-quarters of a mile. This, however, brought only a temporary relief. The firing soon after recommenced, and, for more than a year, continued almost incessantly. In the course of 1782 it was, on the suggestion of General Boyd, returned from the Rock with red-hot balls, a device which was found to produce the most powerful effect. The enemy, however, now prepared for a grand effort. On the 12th of September the combined fleets of France and Spain arrived in the bay. Next morning there were drawn up around the south and west sides of the promontory a most formidable armament, consisting of forty-seven sail of the line, seven of which were three-deckers, together with ten battering-ships, the strongest that had ever been built, and many frigates and smaller vessels. On land there lay an army of 40,000 men, with batteries on which were mounted 200 pieces of heavy ordnance. On the other side, the garrison now consisted of about 7,000 effective men. The ships were permitted to take their stations without molestation; but, about a quarter before ten o'clock, as soon as the first of them dropped anchor, the citadel began to pour upon them its hitherto-reserved artillery. Now commenced a scene of terrible sublimity. Four hundred pieces of the heaviest ordnance thundered without intermission, and filled the air with smoke and flame. "For some hours," says Captain Drinkwater, "the attack and defence were so equally well supported as scarcely to admit any appearance of superiority in the cannonade on either side. The wonderful construction of the ships seemed to bid defiance to the powers of the heaviest ordnance. In the afternoon, however, the face of things began to change considerably. The smoke which had been observed to issue from the upper part of the flag-ship appeared to prevail, notwithstanding the constant application of water; and the admiral's second was perceived to be in the same condition. Confusion was now apparent on board several of the vessels; and, by the evening, their cannonade was considerably abated. About seven or eight o'clock it almost entirely ceased, excepting from one or two ships to the northward, which, from their distance, had suffered little injury."

In the end, the attack ended in the complete annihilation of the assailing squadron. All the larger ships were beaten to pieces or burnt. As night approached groans and signals of distress from those on board the shattered navy supplied the place of the now slackened fire. Many of the wretched men were struggling for life in the waters; and the victors themselves at last put out to their assistance, and picked numbers of them up. The loss of the enemy was supposed to amount to about 2000, including prisoners. Of the English there were only 16 killed and 68 wounded. The Rock was a much better defence than even those strong-built men-of-war. The assailants had had 300 pieces of ordnance in play; the garrison only employed 80 cannon, 7 mortars, and 9 howitzers. "Upwards of 8300 rounds," says Captain Drinkwater, "more than half of which were hot shot, and 716 barrels of powder, were expended by our artillery."

Even this complete discomfiture, however, did not subdue the obstinacy of the besiegers. They continued to encompass the place, and even to keep up a feeble fire upon it some months longer. At length the long blockade was terminated by the announcement of the signature of the preliminaries of a general peace on the

2d of February, 1783. The men in the Spanish boat that came with the tidings of this event made their appearance with ecstasy in their countenances, and exclaiming, "We are all friends!" It was not till the 10th of March, however, that free intercourse was re-established by the arrival from England of the official intelligence that peace had been concluded. General Elliot and his brave companions soon after returned home to receive the congratulations of their country; and since this hard contest no foreign power has dared to assault Gibraltar.

THE LOCUST.

The locust belongs to that class of insects which naturalists distinguish by the name of *gryllus*. The common grasshopper is of this genus, and in its general appearance resembles the "migratory locust," of which we have to speak. The body of this insect is long in proportion to its size, and is defended on the back by a strong corslet, either of a greenish or light-brown hue. The head, which is vertical, is very large, and furnished with two antennæ of about an inch in length: the eyes are very prominent, dark and rolling: the jaws are strong, and terminate in three incisive teeth, the sharp points of which traverse each other like scissors. The insect is furnished with four wings, of which the exterior pair, which are properly cases to the true wings, are tough, straight, and larger than those which they cover, which are pliant, reticulated, nearly transparent, and fold up in the manner of a fan. The four anterior legs are of middling size, and of great use in climbing and feeding; but the posterior pair are much larger and longer, and of such strength that the locust is enabled by their means to leap more than two hundred times the length of its own body, which is usually from two to three inches. Locusts, as the writer of this article has seen them in the East, are generally of a light brown or stone colour, with dusky spots on the corslet and wing-cases; the mouth and inside of the thighs tinged with blue, and the wings with green, blue, or red. These wings are of a delicate and beautiful texture; and in the fine fibres, by which the transparency is traversed, the Moslems of western Asia fancy that they can decipher an Arabic sentence, which signifies "We are the destroying army of God."

The female locust lays about forty eggs, which in appearance are not unlike oat-grains, but smaller. She covers them with a viscid matter by which they are sometimes attached to blades of grass, but are more usually deposited in the ground. For this purpose she prefers light sandy earths, and will not leave the eggs in compact, moist, or cultivated grounds, unless she has been brought down on them by rain, wind, or fatigue, and rendered incapable of seeking a more eligible situation. Having performed this, the female dies; and the eggs remain in the ground throughout the winter. If much rain occurs, the wet spoils them, by destroying the viscid matter in which they are enveloped, and which is essential to their preservation. Heat also seems necessary to their production, for the little worm, which proceeds from the egg, sometimes appears so early as February and sometimes not until May, according to the state of the season. This, in the usual course, becomes a nymph, in which state it attains its full growth in about twenty-four days. After having for a few days abstained from food, it then bursts its skin, comes forth a perfect animal, and immediately begins to unfold and trim its wings with the hinder feet. The insects which first attain this state do not immediately fly off, but wait in the neighbourhood for those whose development is more tardy; but when their army is formed, they take their flight from the district.

To those who have not seen a flight of locusts, it is difficult by description to convey an idea of the appear-

ance it presents. As seen approaching in the distance it resembles a vast opaque cloud, and as it advances a clattering noise is heard which is occasioned by the agitation and concussion of wings in their close phalanges. When they arrive they fill the air, like flakes of thick falling snow; and we have known the bright and clear sky of Chaldea become darker than that of London on some heavy November day.

Wherever they alight every vegetable substance disappears with inconceivable rapidity before them. The most beautiful and highly-cultivated lands assume the appearance of a desert, and the trees stand stripped of all their leaves, as in the midst of winter. After devouring the fruits, the herbage, and the leaves of trees, they attack the buds and the bark, and do not even spare the thatch of the houses. The most poisonous, caustic, or bitter plants, as well as the juicy and nutritive, are equally consumed; and thus "the land is as the Garden of Eden before them, and behind them a desolate wilderness." It seems as if nothing could appease their devouring hunger, and the energy and activity they exhibit, and the rapidity of their operations, almost exceed belief. Their depredations are not confined to the open air;—they scale the walls, and penetrate to the granaries and houses. They swarm from the cellar to the garret, and, within doors and without, they are a terrible nuisance, for they are continually springing about, and often, in consequence, give a person startling raps on different parts of the face, affording very sensible evidence of the force with which they leap; and, as the mouth cannot be opened without the danger of receiving a locust, it is impossible to converse or eat with comfort. When they have settled themselves at night, the ground is covered with them to a vast extent; and, in some situations, they lie one above another several inches thick. In travelling they are crushed beneath the feet of the horses; and the animals are so terribly annoyed by the bouncing against them in all directions of the insects they have disturbed, that they snort with alarm, and become unwilling to proceed.

It is not merely the living presence of these insects which is terrible, but new calamities are occasioned by their death, when the decomposition of their bodies fills the air with pestilential miasma, occasioning epidemic maladies, the ravages of which are compared to those of the plague. Thus famine and death follow in their train; and instances are not of rare occurrence in the East in which villages and whole districts have been depopulated by them.

Under these circumstances it necessarily becomes an object of anxious attention, in the countries they are most accustomed to visit, either to prevent them from alighting on the cultivated grounds, or to drive them off or destroy them after they have descended.

The impression is very general that noise frightens these insect devastators and prevents them from alighting. When, therefore, the people are aware of the approach of their armies, every kettle or other noisy instrument in the place is in requisition, with which, and by shouts and screeches, men, women, and children unite in the endeavour to make the most horrible din in their power. The scene would be truly laughable, from the earnestness which every one exhibits in this strange employment, were not all disposition to mirth checked by the consciousness of the fearful consequences of the invasion which it is thus endeavoured to avert.

How far noise may really operate in preventing their descent in ordinary circumstances, it is not easy to ascertain; but on the approach of evening, or when exhausted by their journey, nothing can prevent them from alighting. They will then descend even on the seas and rivers, of which some striking instances are recorded.

When a swarm has actually alighted, the means employed to drive them off are much the same as those to prevent their descent. But this is never attempted in wet weather, or until the sun has absorbed the dew, as the locust is quite incapable of flying while its wings are wet. When the swarm is large, or when it has come down on cultivated grounds, no measure of destruction is practicable without sacrificing the produce; but when the depredators have been driven to waste grounds, or happened in the first instance to descend upon them, various modes of extirpation are resorted to, of which the following is the most effective:—a large trench is dug from three to four feet wide, and about the same depth. The off side is lined with people furnished with sticks and brooms, while others form a semicircle which encloses the extremities of the trench, and the troop of locusts, which are then driven into the grave intended for them by the clamorous noises we have already described. The party stationed on the other side push back such insects as attempt to escape at the edges, crush them with their sticks and brooms, and throw in the earth upon them.

These insect devastators have fortunately a great number of enemies. Birds, lizards, hogs, foxes, and even frogs, devour a great number; and a high wind, a cold rain, or a tempest destroys millions of them. In the East they are used as an article of food. In some parts they are dried and pounded, and a sort of bread is made which is of much utility in bad harvests. They are sold as common eatables in the bazaar of Bagdad, and the cooks of the East have various ways of preparing them for use.

CHARACTER OF FRANKLIN.

(From the 'Gallery of Portraits,' No. XX.)

Few men ever possessed such opportunities or talents for contributing to the welfare of mankind; fewer still have used them to better purpose: and it is pleasant to know, on his own authority, that such extensive services were rendered without any sacrifice of his own happiness. In his later correspondence he frequently alludes with complacency to a favourite sentiment which he has also introduced into his 'Memoirs';—"That he would willingly live over again the same course of life, even though not allowed the privilege of an author, to correct in a second edition the faults of the first."

His remarkable success in life and in the discharge of his public functions is not to be ascribed to genius, unless the term be extended to that perfection of common sense and intimate knowledge of mankind which almost entitled his sagacity to the name of prescience, and made "Franklin's forebodings" proverbially ominous among those who knew him. His pre-eminence appears to have resulted from the habitual cultivation of a mind originally shrewd and observant, and gifted with singular powers of energy and self-control. There was a business-like alacrity about him, with a discretion and integrity which conciliated the respect even of his warmest political foes; a manly straight-forwardness before which no pretension could stand unrebuked; and a cool tenacity of temper and purpose which never forsook him under the most discouraging circumstances, and was no doubt exceedingly provoking to his opponents. Indeed his sturdiness, however useful to his country in time of need, was perhaps carried rather to excess; his enemies called it obstinacy, and accused him of being morose and sullen. No better refutation of such a charge can be wished for than the testimony borne to his disposition by Priestley ('Monthly Magazine,' 1782), a man whom Franklin was justly proud to call his friend. In private life he was most estimable; two of his most favourite maxims were, never to exalt himself by lowering others, and in society to enjoy and contribute to all innocent amusements without

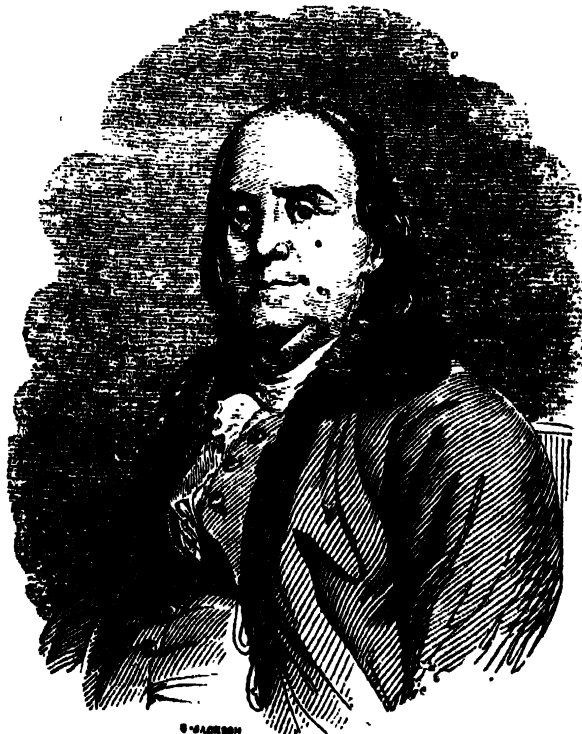
reserve. His friendships were consequently lasting, and chosen at will from among the most amiable as well as the most distinguished of both sexes; wherever his residence happened to be fixed.

His chief claims to philosophical distinction are his experiments and discoveries in electricity; but he has left essays upon various other matters of interest and practical utility—an end of which he never lost sight. Among these are remarks on ship-building and light-houses; on the temperature of the sea at different latitudes and depths, and the phenomena of what is called the Gulf-stream of the Atlantic; on the effect of oil poured upon rough water, and other subjects connected with practical navigation; and on the proper construction of lamps, chimneys, and stoves. His suggestions on these subjects are very valuable. His other writings are numerous; they relate chiefly to politics, or the inculcation of the rules of prudence and morality. Many of them are light and even playful; they are all instructive, and written in an excellent and simple style; but they are not entirely free from the imputation of trifling upon serious subjects. The most valuable of them is probably his autobiography, which is unfortunately but a fragment.

As a speaker he was neither copious nor eloquent; there was even a degree of hesitation and embarrassment in his delivery. Yet as he seldom rose without having something important to say, and always spoke to the purpose, he commanded the attention of his hearers, and generally succeeded in his object.

His religious principles, when disengaged from the scepticism of his youth, appear to have been sincere, and unusually free from sectarian animosity.

Upon the whole, his long and useful life forms an instructive example of the force which arises from the harmonious combination of strong faculties and feelings when so controlled by sense and principle that no one is suffered to predominate to the disparagement of the rest.



[Franklin.]

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HAMPTON-COURT PALACE:



[Middle-Quadrangle of the Palace of Hampton-Court.]

IN the early part of the thirteenth century the manor of Hampton Court became the property of the powerful community of military ecclesiastics, the Knights Hospitallers of St. John of Jerusalem. From the prior of this order a lease of the place was obtained, about the year 1515, by the famous Wolsey, already Archbishop of York, Lord High Chancellor of England, Cardinal, Legate à latere, and rapidly mounting to the zenith of his greatness. The palace of Hampton Court owes its origin to this lordly spirit:—

“He was a man
Of an unbounded stomach, even ranking
Himself with princes.”

In projecting this monument of his taste and splendour, he might be said to aim at over-topping even his royal master. Numerous as then were the residences of the King of England, there was no one—neither Windsor, nor Richmond, nor Eltham, nor Greenwich, nor Whitehall, nor St. James’s—that could vie with the magnificence of that which was rising under the hand of Wolsey. The daring projector was soon made to feel the imprudence of which he had been guilty. The structure, we are told, excited great envy at court, and Wolsey was asked by Henry himself what he meant by building a house so much finer than any of the royal palaces. The aspiring minister, thus suddenly and sharply reminded of whose breath he was the creature, had only one part to take: he replied to his majesty’s question, that it was not for himself he had erected such a dwelling,—that,

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if the gift might be accepted, the palace of Hampton Court was intended for his sovereign. Had Henry not obtained his object in this easy and smooth way, he no doubt would have resorted to rougher means. However, the cardinal did not go unrequited. The king took the palace, but “in recompense thereof,” says Stowe, “licensed him to lie in his manor of Richmond at his pleasure, and so he lay there at certain times.”

This happened in the year 1526. The place afterwards became the favourite residence of Henry; and it has also been inhabited by many of his royal successors. Yet it is the name of Wolsey that still gives its chief historical interest to the spot. Not one of its crowned possessors has left a memory within its courts and halls that either fills the imagination or lives in popular tradition like his. Call it genius, or only fortune, that lifted him to his airy height; there was a force and power in this man’s meteoric course, the dazzle of which is not yet out of the eyes of his countrymen, after the lapse of 300 years. What name in our old history is still so familiar a sound among all classes as that of Cardinal Wolsey? We know no other that comes near it in this respect, except that of Oliver Cromwell, and that is modern in comparison. Had these two men been mere ruffians, however enormous, they would not have been thus remembered. Story, song, and whatever other modes of appeal there are from the heart of one age to that of another which serve to convey and multiply fame, all revolt from unmixed and unadorned

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villainy. There was a lofty and soaring magnificence in Wolsey's nature, which, despite of all his faults and vices, threw a glory around him. Nor was he probably without some amiable qualities, and some points that merited esteem from the coldest reason. The character drawn of him to Queen Catherine, by the "honest chronicler" Griffith, may perhaps be allowed to describe him with nearly as much truth as force and liveliness:—

"This Cardinal,
Though from an humble stock, undoubtedly
Was fashioned to much honour. From his cradle
He was a scholar, and a ripe and good one;
Exceeding wise, fair-spoken and persuading;
Lofty and sour to them that loved him not;
But to those men that sought him, sweet as summer.
And though he were unsatisfied in getting,
(Which was a sin,) yet in bestowing, madam,
He was most princely: ever witness for him
Those twins of learning, that he raised in you,
Ipswich and Oxford! one of which fell with him,
Unwilling to outlive the good that did it;
The other, though unfinished, yet so famous,
So excellent in art, and still so rising,
That Christendom shall ever speak his virtue.
His overthrow heaped happiness upon him;
For then, and not till then, he felt himself,
And found the blessedness of being little;
And, to add greater honours to his age
Than man could give him, he died, fearing God."

The palace projected and, in great part at least, erected by Wolsey, consisted of five quadrangles. Of these only two now remain, the site of the other three being occupied by the new buildings, forming what is called the Fountain Court, which were added by Sir Christopher Wren, in the reign of William III. Here are the suite of state rooms, the gallery containing the famous Cartoons of Raffaele, and the principal apartments which have been inhabited by the royal family in modern times; but this portion of the palace neither corresponds in architectural character with the ancient design, nor has much pretension to superior elegance in itself. Sir Christopher's attempts upon a Gothic groundwork were usually failures; his genius was wholly averse to the spirit of that style. In the present instance, however, nothing Gothic was thought of. King William wanted rather a convenient than an ornamental building; and the mediocrity of the performance is probably attributable in some respects less to the taste of the architect than to that of his royal master.

The Fountain Court forms the eastern division of the palace. The grand front looks towards the west; and, although injured in character and effect by the introduction of modern windows among the fanciful and picturesque forms of the original design, is still a handsome elevation. The quadrangle immediately within the gate, called the Entrance Court, is supposed to be the most ancient part of the building. Here, there can be little doubt, we have Wolsey's own work. The apartments surrounding this court are for the most part tenanted by private families, to whom the privilege of residing here is granted by the crown. It is stated in the Guide Books that, including servants, the number of persons thus lodged in the palace is not less than 700; but, judging by the deserted appearance of the place, it is difficult to believe that it can be the nest of so large a population. One of the rooms in this court is interesting as having been, it is said, the sleeping chamber of Charles I. after he was brought here by the army on the 24th of August, 1647. The few weeks which he spent at Hampton Court between this date and the 11th of November, when he made his escape to the Isle of Wight, witnessed the unhappy monarch's last exercise of the semblance of royal authority. "He lived, for some time," says Hume, "in that palace, with an appearance of dignity and freedom. Such admirable equanimity of temper did he possess, that, during all the variety of fortune which he underwent, no difference

was perceived in his countenance or behaviour; and, though a prisoner, in the hands of his most inveterate enemies, he supported towards all who approached him the majesty of a monarch; and that, neither with less nor greater state, than what he had been accustomed to maintain. His manner, which was not in itself popular nor gracious, now appeared amiable, from its great meekness and equality." The room, in which he is said to have slept, is a small octagonal closet, with an iron door. Cromwell is asserted to have made the same apartment his bed-chamber, the security afforded by the iron door inducing him to prefer it to a more spacious room. And it has also the credit of having been Wolsey's oratory; a tradition to which some remains of paintings on the walls, representing the Last Supper and other scriptural subjects, have probably given origin. It is now,—

"To such base uses may we come, Horatio,"—
used as a pantry.

The next quadrangle, called the Middle Court, is also a part of the ancient palace. A conspicuous object on one of the sides of this court is an ancient clock, which was long said to have been made by the famous Tompion, but appears to be the work of another artist, Lindsay Bradley, who lived about the beginning of the last century. The date on it is in 1711. But the object of greatest interest here is the Great Hall, which is on the north side of the court: this is a noble room, 104 feet in length by 40 in breadth, with a rich Gothic roof and a splendid oriel window. In 1527, an entertainment of extraordinary splendour was given, by order of Henry VIII., to the French ambassador in Hampton-Court Palace; Wolsey, who had the year before presented the palace to the king, having been commanded to preside over both the preparation and the solemnization of the festivities. On this occasion the magnificent Cardinal seems to have exhausted his ingenuity to furnish out a succession of the most sumptuous revelries for the gratification and wonder of his guests. A long and minute account of the whole affair has been given by his biographer Cavendish, in a passage which has been frequently extracted. The scene of the principal part of the entertainment is stated to have been the Great Hall of the palace. There are considerable doubts whether this was, as is commonly asserted, the present hall; for the erection of that room has, by a very competent authority, been assigned to a somewhat later date. Among its decorations are the initials of Henry and his queen, Jane Seymour, twisted by a true-lover's knot; and this, as has been remarked by Mr. Lysons, in his 'Historical Account of those Parishes in the County of Middlesex which are not described in the Environs of London,' seems to prove that it must have been built either in 1536 or 1537, the only two years during which Jane Seymour was queen. To obviate the force of this objection, it has been supposed that this cipher might have been introduced while the hall was undergoing some repair in one of these years. There can be no doubt, also, from the account given by Cavendish, that there was a Great Hall in the palace in 1527; and there is now no trace of any room answering his description except this. This answers perfectly, having also a smaller apartment at one end, now called the Board of Green Cloth, which seems exactly to occupy the position of what Cavendish calls the Chamber of Presence, in which some of the tables were set at the great feast.

VOLCANIC ISLAND OFF THE AZORES.

(From a Correspondent.)

HAVING seen, in a late Number of your Magazine, an account of the volcanic island which recently made its appearance off the south coast of Sicily, I beg leave to send you the accompanying slight notice of a similar phe-

nomenon which occurred off the Island of St. Michael, (Azores.) This event may be probably unknown to many of your readers, or forgotten by others, who will thus have an opportunity of comparing these two remarkable events.

In the night of the 1st of February, 1811, flames were observed issuing from the sea at the distance of about a mile and a half from the west end of St. Michael; and, soon after, a most awful and tremendous explosion took place, throwing up, from a depth of forty fathoms, cinders, ashes, and stones of immense size. Quantities of fish, as if boiled, floated on the surface of the sea towards the shore; and a dangerous shoal was thus formed. On the 18th of June, two columns of white smoke were seen rising from the sea at this spot, and the *Sabrina* British sloop-of-war, supposing it to be the result of an engagement, made sail towards it. For two or three days previous, however, repeated shocks of earthquake had been felt in St. Michael, which threw down several cottages and portions of the cliff towards the north-west; but these ceased so soon as the volcano broke out. On the 18th, it was still raging with unabated violence, throwing up, from under the water, large stones, cinders, ashes, &c., accompanied with several severe concussions. About noon, on the same day, the mouth of the crater just showed itself above the surface of the sea where there was formerly forty fathoms of water; at 3 P.M. it was about thirty feet above the water, and about a furlong in length. On the 19th, it was about fifty feet in height and two-thirds of a mile in length, still raging as before, and throwing up large quantities of stones, some of which fell a mile distant from the volcano. The smoke drew up several waterspouts, which, spreading in the air, fell in heavy rain accompanied with vast quantities of black sand.

On the 20th, the *Sabrina* proceeded on a cruise, leaving the volcano about 150 feet high, still raging as formerly, and increasing in size;—when she returned, on the 4th of July, it was found quite quiet, and a complete island formed. The captain and several officers landed upon it, and found it very steep, and between 200 and 300 feet in height. It was with difficulty they were able to reach the top, which at last they effected, in a quarter where there was a gentle declivity; but the ground, or rather ashes, composed of sulphureous matter, dross of iron, &c., was so very hot to their feet that they were glad to return after having taken possession of the island in the name of his Britannic Majesty, and left an English Union Jack flying on it.

The circumference of the island, which was of a circular form, was, at this time, about a mile. In the middle was a large basin of boiling water, whence a stream, about six yards across, ran into the sea on the side facing St. Michael; and at the distance of fifty yards from the shore, the water, although thirty fathoms deep, was too hot to hold the hand in. In short, the whole island appeared as a crater; the cliff on the outside as walls, steep within and without.

The appearance of the volcano prior to the crater showing itself above the surface, as seen from the nearest point of St. Michael, on a cliff about 400 feet above the sea, was that of an immense body of smoke revolving in the water almost horizontally, in varied involutions, when suddenly would shoot up a column of the blackest cinders, ashes, and stones, in form like a spire, and rising to windward at an angle of 10° to 20° from the perpendicular. The columns of ashes, &c., at their greatest height, formed into branches resembling magnificent pines, and, as they fell, mixing with the festoons of white smoke, at one time assumed the appearance of vast plumes of black and white ostrich feathers; at another, that of light, wavy branches of the weeping willow. These bursts were accompanied by

explosions of the most vivid lightning, and a noise like the continual fire of cannon and musketry; and, as the cloud of smoke rolled off to leeward, it drew up the waterspouts above mentioned, which formed a beautiful and striking addition to the scene.

Subsequently, this islet sunk gradually into the sea, and, in the middle of October, no part was left above water; but a dangerous shoal remained in the place which it had occupied, and exists to this day. In February, 1812, smoke was again discovered issuing out of the sea near the spot. In Dr. Webster's recent account of St. Michael may be found some further particulars relative to this submarine volcano.

SPONGE.

This well-known marine production has been in use from very early times, and naturalists were long embarrassed whether to assign it a place in the animal or the vegetable kingdom. Most authorities now agree in putting the sponges in the lowest scale of animal life. There are about fifty different species of sponges, of which nine or ten belong to this country. They are found in the Mediterranean and those seas in warm and temperate latitudes, diminishing in number and becoming of inferior quality on the approach to cold regions. They adhere to rocks in places the least exposed to the action of currents and waves, which the ebbing tide does not leave uncovered. The best sponges known to us are those which come from the Archipelago, where they abound near many of the islands, whose inhabitants may be said to subsist by the sponge-fishery, if we may so call it. At the Cyclades, for instance, sponge-diving forms the chief employment of the population. The sea is at all times extremely clear, and the experienced divers are capable of distinguishing from the surface the points to which the sponge is attached below, when an unpractised eye could but dimly discern the bottom. Each boat is furnished with a large stone attached to a rope, and this the diver seizes in his hand on plunging head foremost from the stern. He does this in order to increase the velocity of his descent; thus economizing his stock of breath, as well as to facilitate his ascent when exhausted at the bottom, being then quickly hauled up by his companions. Few men can remain longer than about two minutes below; and, as the process of detaching the sponge is very tedious, three, and sometimes four divers descend successively to secure a particularly fine specimen.

The best sponge is that which is the palest and lightest, has small holes, and is soft to the touch. By the old physicians, sponge was regarded as a cure for a long list of maladies; this list is now much abridged, though burned sponge, in which form only it is used, still has a place in the *materia medica*.

SHAKESPEARE'S CLIFF.

The subjoined is a view of the precipice south-west from Dover, which has been long known by the name of Shakespeare's Cliff, from the famous description in 'Lear,' which it is supposed to have suggested. In the first scene of the fourth act of that tragedy, the blind Gloucester, while wandering on the heath, having met his son Edgar, who does not discover himself, asks him, "Dost thou know Dover?" and when the latter answers "Ay, Master," rejoins

"There is a cliff, whose high and bending head
Looks fearfully in the confined deep;
Bring me but to the very brim of it.
From that place
I shall no leading need."

From the first two of these lines the particular cliff here depicted has probably been fixed upon as that which the poet must have had in his mind. The sum-

mit of this portion of the chalky battlement formerly overhung its base, and, as Gloster forcibly expresses it, looked fearfully *in* (*not on*, as it has often been printed,) the confined deep. Shakspeare's Cliff, however, has now lost this distinguishing peculiarity. So many portions have successively fallen from it that, instead of bending over the sea, it now retires at the top towards the land; and, as may be observed in the engraving, part of the precipice is broken off into a declivity. Another effect has been, that its height is considerably diminished, and the look down is not now so fearful as it must have been in Shakspeare's days.

Having led his father some way farther on, Edgar at length pretends to have brought him to the neighbourhood of the Cliff. He then exclaims,

"Come on, Sir, here's the place:—Stand still; how fearful
And dizzy 'tis to cast one's eyes so low!
The crows and choughs that wing the midway air
Show scarce so gross as beetles: half way down
Hangs one that gathers samphire; dreadful trade!
Methinks, he seems no bigger than his head;
The fishermen that walk upon the beach
Appear like mice; and you tall anchoring bark
Diminish'd to her cock; her cock, a buoy
Almost too small for sight: the murmuring surge,
That on the unnumber'd idle pebbles chafes,
Cannot be heard so high. I'll look no more,
Lest my brain turn, and the deficient sight
Topple down headlong."

There has been some disputation among the commentators as to the poetical merits of these lines; and Dr. Johnson has chosen to say that he is far from thinking

the description to be wrought to the utmost excellence of poetry. He conceives that it is unnatural for the mind when one is looking down a precipice, to be made to occupy itself with the observation of particulars, instead of being overwhelmed by the one great and dreadful image of irresistible destruction. It is to be considered, however, as Mr. Mason has well remarked, that Edgar is here describing only an imaginary precipice, or, at least, not one which he was actually looking down from. The passage is to be read with a recollection of the character, or assumed character, of Edgar; and whatever exaggeration there may be in it which is not sanctioned by the spirit of poetic representation, may be very fairly set down to the over-excited fancy and exalted language in which, as "poor Tom," the speaker throughout indulges. Some of the lines, however, independently altogether of this dramatic reference, are of exquisite beauty. "What, for instance, can be more musically descriptive than—

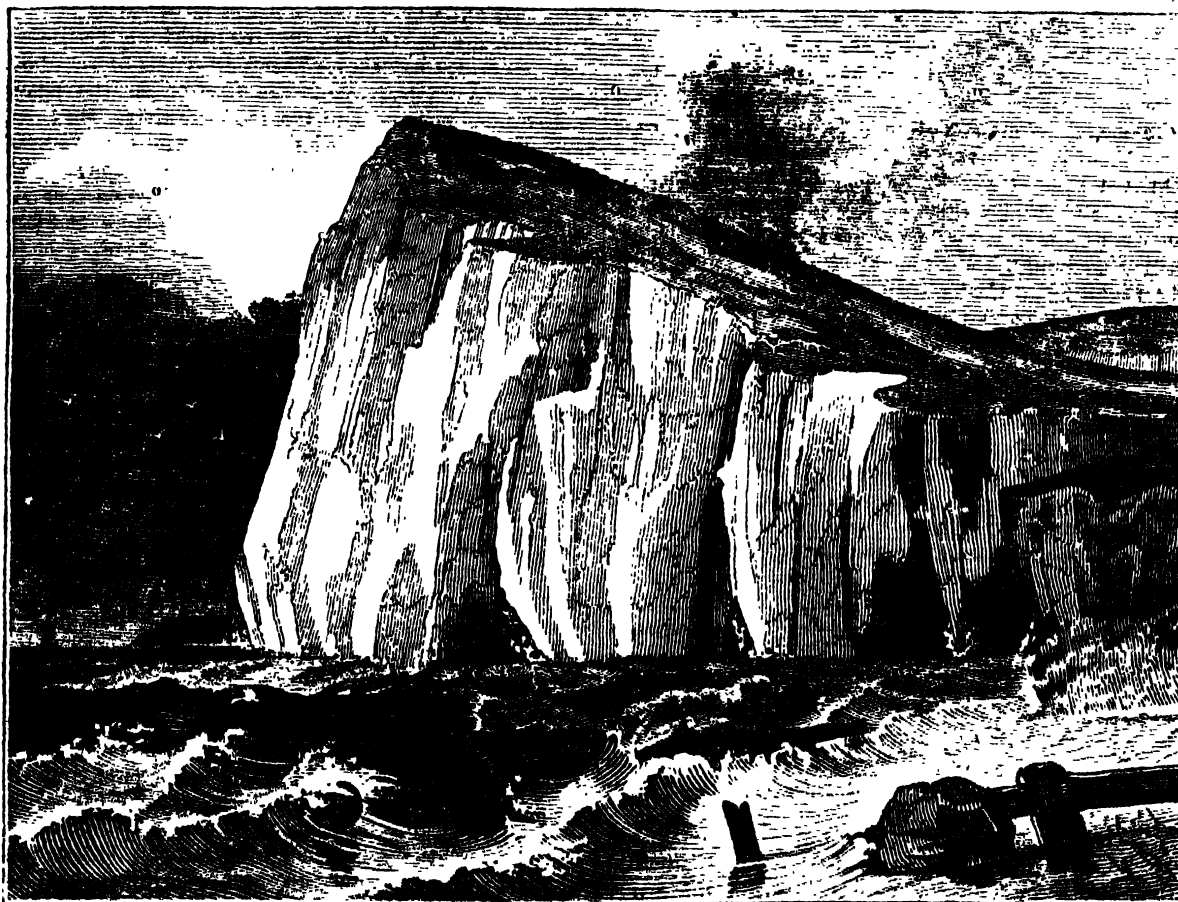
"The crows and choughs that wing the midway air"?

or,

"—— The murmuring surge,
That on the unnumber'd idle pebbles chafes,
Cannot be heard so high"?

These words bring the scene, not only to the eyes, but almost to the ear; they give both the sights and the sounds.

The gathering of samphire, we may add, was actually pursued as a trade in Shakspeare's days. The herb was much used as a pickle.



[Shakspeare's Cliff.]

THE MIRAGE.

The *mirage* is a very curious optical delusion, by which, instead of a simple perception, approximated, multiplied, and generally vertical images of an object are exhibited to the eye. We shall endeavour to describe some of the appearances presented—particularly that of the *sirahb*, or, "water of the desert," of which we are enabled to

speak, not only from the reports of others, but from personal observation; and shall then state the principles on which the phenomena are explained.

There are few travellers in the East who do not forcibly describe and feelingly complain of the suffering endured from the want of water, in traversing the desert

plains of Egypt, Syria, and Persia: and to complete the appalling statement, it is only necessary to add, that it is precisely in those districts where the traveller is exposed to the most intense agonies of thirst, that his wants are mocked by the illusion which it is our present object to describe.

Conceive an European in those countries travelling with—

—“Some great caravan, from well to well,
Winding as darkness on the desert full,”

where the ground beneath him resembles the hot ashes of a forge, and the atmosphere is felt as the vapour of a furnace. No river, spring, or lake has been seen for many days; and the water in the skins is quite exhausted, or so much reduced that a drop is more precious than gold. Every eye is dim; every tongue, swollen, parched, and rent, cleaves to the roof of the mouth; and the Arabs begin to talk of killing the camels for the sake of the water contained in their stomachs. In such circumstances it is easy to imagine the delight with which, in the heat of the day, the traveller perceives before him one or more lakes, reflecting on their clear surface the palm-trees, the hills, or any other objects around or within it, by which the uniformity of such a plain may be broken. He cannot make audible the joyful cry of “water! water!” but puts his beast to its speed, and wonders, perhaps, that none of the natives, whose wants are equal, seem similarly excited by the appearance. But he soon finds, to his great astonishment, that he cannot reach the water for which he longs, even “as the hart panteth for the water-brooks.” The shore of the lake recedes as he approaches, and its dimensions are consequently contracted until, if he proceeds, it disappears, and is frequently formed anew at a distance beyond him. Pausing to consider the phenomenon with more attention, the traveller, if an intelligent person, will identify the appearance with what he has heard of the mirage; but the most attentive consideration will not enable him to detect, in the exhibition, any circumstances different from those which would be presented by real water. Sometimes the clear, calm azure reflects the objects around with the greatest precision and distinctness; and often the whitish vibratory volume exhibits the contours of the reflected objects as badly terminated, with that sort of indecision which always accompanies such representations in water slightly ruffled by the wind. Local circumstances sometimes contribute to give more striking effect to the illusion. In Lower Egypt, for instance, the villages, in order to avoid the effects of the inundation of the Nile, are built on small eminences, scattered through a plain of vast extent. Towards the middle of the day, when the ground was heated, each village often appeared to the French army, during the campaign in that country, as if surrounded, to the distance of a league, by a lake, in which, underneath the village, a distinct reversed image of it was represented. This illusion is altogether so perfect and so strong, that, in our own case, after repeated experience, we always, in the first instance, took the mirage for real water, unless when, from local knowledge or the circumstances of the place, we knew its existence to be impossible or unlikely.

In other circumstances the images are exhibited without the concomitant illusion of water; and of this a very curious example was observed by Dr. Vince, at Ramsgate, on the 6th of August, 1806. Between that place and Dover there is a hill, over which the tops of the four turrets of Dover Castle are usually visible to a person at Ramsgate. But, on this occasion, Dr. Vince not only saw the turrets but the whole of the castle, which appeared as if it had been removed and planted on the side of the hill next to Ramsgate, and rising as much above the hill on that side as it actually did on the other; and this image of the castle was so strong

and well-defined, that the hill itself did not appear through it. It should be observed that there is almost six miles of sea between Ramsgate and the land from which the hill rises, and about an equal distance from thence to its summit; and that the height of the eye above the sea in this observation was about seventy feet.

This phenomenon is not confined to the land. It is, perhaps, more frequently observed at sea; and indeed the very term (mirage) by which it is denominated originated with the French sailors. At sea the mirage is usually noticed under the form distinguished by the term “suspension.” The object is then represented as above the water, painted, as it were, on the sky. Of this species of mirage we can find no instance more striking than that which was observed by Captain Scoresby, 28th of January, 1820, in the Greenland seas. The sun had shone during the day without the intervention of a cloud, and his rays had been unusually ardent. About six o'clock, P.M. a light breeze sprung up, and most of the ships navigating at the distance of ten or fifteen miles, amounting to about eighteen or nineteen sail, appeared then to undergo a change of magnitude and form; and, when examined from the mast-head with a telescope, exhibited some very extraordinary appearances, differing in almost every point of the compass. One ship had an inverted image above it; another had two distinct images in the air; a third was distorted by elongation, the masts being nearly of twice the proper height; and others underwent contraction. All the images of the ships were accompanied by a reflection of the ice, in some places in two strata.

The images of the mirage are commonly vertical,—that is, presenting the appearance of one object above another, like a ship above its shadow in the water. Sometimes, however, though very rarely, they are horizontal or lateral,—that is, one or more images are represented on the same plane with the object. This form of the phenomenon has been observed on the Lake of Geneva by M. Provost, and, on the 17th of September, 1818, by MM. Jurine and Soret, whose account we shall quote as the most distinct of the two. A bark near Bellerive was seen approaching Geneva by the left bank of the lake, and at the same time an image of the sails was seen above the water, which, instead of following the direction of the bark, separated from it, and appeared to approach Geneva by the right bank of the lake; the image moving from east to west, while the bark moved from north to south. When the image separated from the object it was of the same dimensions as the bark, but it diminished as it receded, so that when the phenomenon ceased it was reduced one half.

This remarkable class of optical illusions is accounted for, as follows:—Whenever a ray of light strikes obliquely a medium less refracting than that in which it was previously moving, it is turned back into the original medium, and a direction is given to it precisely similar to that which would have been the result of a reflection taking place at the common surface of the two mediums. Now the sand of the desert, or the surface of the sea, being heated by the rays of the sun, communicates a portion of its warmth to the stratum of air immediately superposed, which then dilates, and becomes consequently less dense, and, therefore, less refracting than the superior strata. In this state of things when an observer regards an object a little elevated above the horizon, the rays, which in coming to him traverse a layer of air of uniform density, will exhibit it in the natural position, while the light directed obliquely towards the surface of the earth will be bent downward, and so come to the eye as if from an object placed inversely and below the former. This explains the inverted image below the object; but our limits will not allow us to apply the principle to a detailed explanation of all the forms of the phenom-

non which we have stated. We must therefore content ourselves with repeating that these effects result from a partial alteration in the density of the atmosphere, and the unusual operations to which the light is in consequence subjected in coming to the eye. It is not necessary that the alteration should be a decrease of density, since, as the two opposite states of the atmosphere produce the same effects, the mirage at sea is often occasioned by the increase of density in the lower stratum of the atmosphere from the quantity of water which it holds in solution.

We do not until 1797 find any but the most superficial notices of the mirage. In that year Mr. Huddart and Mr. Vince communicated instances of the phenomenon to the Royal Society, and inquired into the causes which produced such illusions. Subsequently M. Monge in Egypt, and Dr. Wollaston in England, simultaneously occupied themselves in the same researches, and, arriving at the same conclusions, their labours established the theory of the mirage on its present basis. The latter philosopher, to whom science is so much indebted, indicated very simple means for the artificial production of the most remarkable peculiarities of the illusion. He usually employed fluids for this purpose; but we shall adduce one very easy experiment of a different character. Dr. Wollaston took a red hot poker and looked along the side of it at a paper 10 or 12 feet distant. A perceptible refraction took place at a distance of three-eighths of an inch from it. A letter more than three-eighths of an inch distant appeared erect as usual; at a less distance there was a faint reversed image of it; and still nearer to the poker was a second erect image. Sir David Brewster has also since contributed to extend our knowledge of the subject, and succeeded in obtaining very natural and beautiful imitations of the phenomena of the mirage, by the simple method of holding a heated iron over a mass of water. As the heat descends through the fluid there is a regular variation of density, which gradually increases from the surface to the bottom. If the heated iron be withdrawn and a cold body substituted in its place, or even if the air be allowed to act alone, the superior strata of water will give out their heat so as to have an increase of density from the surface to a certain depth below it. Through the medium thus constituted, all the phenomena of unusual refraction may be seen in the most beautiful manner, the variation of density being produced by heat alone. Sir David Brewster has also produced the same effects with plates of glass; and in applying the heat in different ways to them, the remarkable phenomenon of Dover Castle has been readily imitated.

TEMPERANCE.

(From the "American Almanac for 1834.")

THE evils of intemperance and drunkenness have been known and lamented ever since the means of intoxication were discovered; but since the method was found out of extracting alcohol from fermented vegetable juices, these evils have been multiplied a thousand fold. In this country, more than twenty years since, the use of distilled spirit, under different names, had become so general, and the vice of intemperance so prevalent, as to excite the fears of patriots and Christians, not only for the national morals, but for the existence of all our institutions of government, learning, and religion.

In the year 1813 a society was organized in Boston by the name of the 'Massachusetts Society for the Suppression of Intemperance.' The objects of this Society, as expressed in its constitution and first report, were to suppress the "too free use" of distilled or ardent spirit as drink; to substitute some other and wholesome drink for labourers in the place of this "poison;" and

to discourage and do away the custom of offering it as a token of friendship or hospitality. For a number of years this society was considerably active and decidedly useful; and its influence has been more or less salutary till the present time. But no great and striking progress was made in the cause of Temperance till the formation of the American Temperance Society in 1826. The object of this latter society, from its commencement, has been to do away *all* use of ardent or distilled spirit as drink; to promote temperance by means of entire abstinence from alcohol. The members of this society, and the members of societies auxiliary to it, are pledged to abstain from the use of ardent spirit, except as medicine. Through the agency, direct and indirect, of the American Temperance Society, great and surprising changes have taken place in this country in relation to the use of ardent spirit; and the subject has attracted the attention of most of the nations in Europe.

* The almost universal use of ardent spirit in this country arose principally from three causes: first, from the love of excitement natural to our race; secondly, from the cheapness and ease with which excitement could be obtained from a small quantity of alcohol; and thirdly, from the very general belief, that the use of a small quantity, or, in other words, the temperate use of it, was really beneficial. From this last cause, however, more than from all other causes, no doubt, arose the prevailing use of ardent spirit, and, of course, almost all the evils of intemperance and drunkenness in the country. The belief, that a moderate use of it was good for the stomach, the spirits, the blood, and physical strength, had taken, as is well known, strong and deep hold upon the public mind. Everybody knew and admitted, that it was wrong and injurious to drink much; but almost everybody was satisfied at the same time, that it was right and wholesome to take a little.

Now this belief was either correct or incorrect. If correct, the proper course was to drink ardent spirit moderately; and it was the proper business of Temperance Societies to exert their influence to keep the temperate users temperate, and to bring the intemperate users to the same practice.

But if the belief in question was grossly incorrect, then the proper course was, not only to call the public attention to the enormous and growing evils of intemperance, but if possible, to undeceive the public mind concerning the nature and use of ardent spirit; and thus to lay the foundation broad and deep for the ultimate and entire suppression of the use of it as a common drink.

Fortunately for the cause of humanity, the truth on this subject was at length not only perceived, but felt; and through the active labours of the friends of temperance, within the last seven years, vast numbers have been fully convinced that distilled spirit used as a drink is not good but injurious and poisonous; that the use of it is not fitted to the physical constitution or moral condition of the human family.

All sorts of arguments, bearing upon the subject, have been brought forward to change the public mind; but the most successful argument has been that derived from personal experience. All that have been in the habit of using ardent spirit, whether moderately or immoderately, and have exchanged the habit for that of entire abstinence from it, have declared, without a known exception, that they are decidedly better without it than they ever were with it.

This argument, from personal experience, is plain, practical, and perfectly unanswerable. It can be understood without studying books of anatomy, chemistry, or medicine. It can be brought to the test by every drinker of ardent spirit, temperate or intemperate, who will take the pains to try it. And the friends of temperance maintain, that the experience of the vast num-

bers who have tried it and found it perfectly satisfactory, added to the admitted evils of intemperance, lay upon the remaining drinkers of ardent spirit the strongest moral obligation to make the experiment of abstinence, and to make it fairly and fully.

Since the formation of the American Temperance Society in 1826, more than 5000 temperance societies have been formed, and more than twenty of them State societies, within the United States,—comprising many men of the first respectability for character, talents, and influence; and the whole number of members amounts to about a million. And it is believed, that the temperance reformation has exerted a very salutary influence upon the personal habits of a still greater number of persons who have not united with any temperance society.

It is stated in the Sixth Report of the American Temperance Society, that, since the temperance reformation commenced in this country, more than 2000 persons have discontinued the business of making ardent spirit, and more than 6000 left off selling it;—that more than 5000 drunkards, having ceased to use intoxicating drinks, have become sober men; that 700 vessels are now navigated without using it; and though they visit every clime, at all seasons of the year, and make the longest and most difficult voyages, the men are uniformly better in all respects than when they used it; that out of ninety-seven vessels belonging to New Bedford, Massachusetts, seventy-five sail without ardent spirit; and that, on account of the increased safety to property, it has become common for insurance companies to insure those vessels which carry no spirituous liquors for a less premium than others.

The reformation has exerted a visible and most happy influence on a great many towns and villages; on manufacturing establishments of various kinds; on communities engaged in agricultural employments, and on the labouring classes of all pursuits. Of these classes, the least exhausted by fatigue, the most cheerful and happy at the close of the day, and the most refreshed and invigorated when the morning returns, are they who make no use of distilled spirit as drink. But notwithstanding much has been done in the way of reform, very, very much remains to be done. The use of ardent spirit as drink is still a great national calamity, as well as national sin; and great impediments still lie in the way of its removal.

Advantage of Activity.—As animal power is exhausted exactly in proportion to the time during which it is acting, as well as in proportion to the intensity of force exerted, there may often be a great saving of it by doing work quickly, although with a little more exertion during the time. Suppose two men of equal weight to ascend the same stair, one of whom takes only a minute to reach the top, and the other takes four minutes, it will cost the first little more than a fourth part of the fatigue which it costs the second, because the exhaustion is in proportion to the time during which the muscles are acting. The quick mover may have exerted perhaps one-twentieth more force in the first instant to give his body the greater velocity, which was afterwards continued, but the slow supported his load four times as long.—*Arnott's 'Elements of Physics.'*

THE CHETAH, OR HUNTING LEOPARD.

THE state of domestication, or rather, perhaps, of subjugation to man, in which many animals (and we allude more especially to those of the class mammalia) are born and bred, constitutes not only a curious and interesting feature in the review we take of nature, but affords a wide subject for speculation and inquiry. Some animals, as far as we may trace back the records of history, appear from the earliest dawnings of society

to have been, as now, the slaves or the companions of man; so that not only is their origin enveloped in obscurity, but in some instances at least, it may admit of a doubt, whether the wild races of the animals referred to are not rather to be regarded as the descendants of a domestic stock, which at a remote epoch has by some fortuitous accident been left to itself,—or has brought forth a progeny under circumstances, which, compelling them to a life of freedom, led them to become the forefathers of a wild and untamed race. This, however, is but a speculation, and as such we leave it.

If there are some animals which seem created expressly for the use of man,—animals whose interests are united with his, or which constitute no mean portion of the wealth of civilized nations, and in fact require the care of man as much as man requires their invaluable services,—there are on the other hand a few which yield reluctantly to his supremacy, are in bondage to rigid discipline, and wear with impatience the yoke of servitude, subdued by fear alone. These, nevertheless, he has made subservient to his will, and that rather by availing himself of their strong instinctive propensities, than by modifying in any degree their fixed and unalterable character. This is itself no easy task, and in order to accomplish it, it is requisite that the animal be taken young, and subjected early to a due system of education, in order that habits of obedient submission may be formed, and that the fear of man may grow with its growth. These reflections suggest themselves as we turn from the contemplation of the dog to that of the chetah, or hunting leopard of India. Both are carnivorous; both prey upon the flesh of slaughtered animals; both are naturally ferocious; and both are used by man in hunting down his game. In the dog, however, we find an aptness and a docility which render him less the slave than the friend and companion of his master, whose actions and looks he watches with solicitude, and to whom he evinces unshaken fidelity. The character of the chetah is the counterpart of all this; such as it is when in a state of freedom, that is it also when in bondage.

The chetah (*felis jubata*) belongs to the typical genus (*felis*) of the “carnassiers” of Cuvier, though in one point it offers a slight departure of form from the group with which it is associated;—we allude to the semi-retractile condition of the talons. If we examine the talons of the lion or tiger, we find them capable of being withdrawn into a sheath, so that unless when brought into action they are completely hidden. This retractability results from the mechanism of the joint uniting the last phalangeal bone to the one which precedes it, so that the former bone, which is partially encased in the talon or hooked nail, is allowed to pass by the inner side of its predecessor. The retraction is involuntarily effected by a lateral ligament, which acts as a sort of spring, and by the natural action of the extensor muscles of the fore-arm operating by means of tendons on the bones to which these formidable engines are attached. Now, in the chetah, the talons are at best but partially retractile from the laxity of the ligaments, and, consequently, are more worn and blunted at the points than is the case in the lion, tiger, or panther; besides this, the paw is less rounded and cat-like, and, in fact, more approaching that of the dog in its general form than is to be found in any other of the genus. In anatomical conformation, however, as well as in disposition, the chetah is strictly feline.

The chetah is a native of India, where it is trained for the chase; and also of Africa. It is as large, or nearly so, as the leopard, but is superior in height, owing to the length of its limbs, which are slender and tapering; its body also is less robust, and reminds one,

in some degree, of that of the greyhound. The fur is more than moderately full, and of a yellowish fawn-colour, beautifully covered with round black spots; and a distinct stripe of this colour passes from the inner angle of the eye to the mouth. A thin hog-like mane runs down the back of the neck. The forehead and outline of the profile are convex; the eye is very fine, large, and expressive. In Col. Sykes's Catalogue of Animals found in the Deccan (see 'Proceedings of the Committee of Science and Correspondence of the Zoological Society,' Part i. p. 102), he observes that domestication produces a difference in the fur of the 'cheeta,' which has led to the supposition of there being two species (that which is maned being assigned exclusively to Africa, termed *felis jubata*,—the other *felis vanatica*); whereas the truth is that the "skin of the wild animal has a rough coat, in which the mane is marked; while domesticated animals from the same part of the country are destitute of mane, and have a smooth coat." Hence the supposition of there being two species falls to the ground.

In the 'Field Sports of India,' the mode of coursing with the chetah is thus described:—"They are led out in chains with blinds over their eyes, and sometimes carried out in carts; and when antelopes or other deer are seen on a plain, should any of them be separated from the rest, the chetah's head is brought to face it,

the blinds are removed, and the chain taken off. He immediately crouches and creeps along with his belly almost touching the ground, until he gets within a short distance of the deer, who, although seeing him approach, appears so fascinated, that he seldom attempts to run away. The chetah then makes a few surprising springs, and seizes him by the neck. If many deer are near each other, they often escape by flight; their number, I imagine, giving them confidence, and preventing their feeling the full force of that fascination, which to a single deer produces a sort of panic, and appears to divest him of the power, or even inclination, to run away or make resistance. It is clear that they must always catch them by stealth, or in the manner I have described, for they are not so swift even as common deer."

To this account we may add that, should the chetah miss his aim, he desists from further pursuit, and clinks back to his master, who replaces the hood, and reserves him for another chance. When he is successful, the ferocity of his nature at once displays itself, so that, to recover the prey, the keeper is obliged to be extremely cautious, enticing him with meat carried for that purpose. These beautiful creatures are rare in collections in this country: but the menagerie of the Zoological Society contains three or four fine specimens.



[Chetah.]

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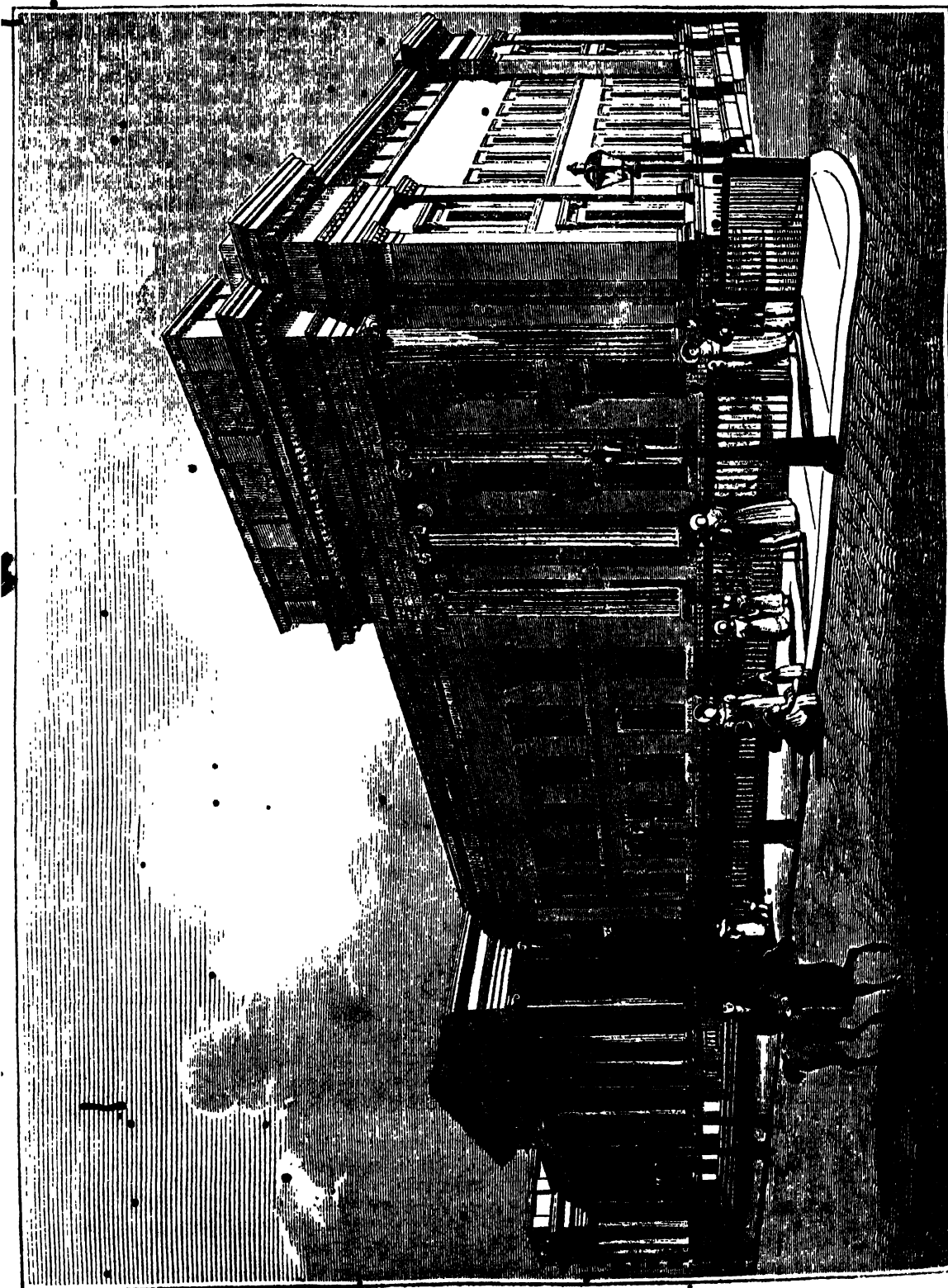
OF THE

Society for the Diffusion of Useful Knowledge.

[17.]

December 31, 1833, to January 31, 1834.

THE HISTORY AND PRESENT STATE OF THE POST-OFFICE.



[West Front of the London Post-Office.]

In the advanced state of civilization to which we have now attained in this country, we possess many advantages of the highest importance, which are indeed essential to our daily comfort, but which, presenting themselves with unvarying regularity, pass without observation, and almost without our being conscious of enjoying them. Among the principal of these may be reckoned an efficient and well-regulated system for the transmission of letters, not only through every district and into every nook and cranny of the British islands, but also to and from every part of our wide-spread dominions, as well as every other civilized country on the habitable globe.

We cannot, perhaps, more forcibly present to our minds the great value of this institution than by imagining what must be the condition of this country, in all its various relations, if a sudden stop were put to the active operations of our Post-office. What a check would this occasion to profitable commerce! How importantly would it interfere with that proper proportioning of supply to demand which is essential to the comfortable existence of every well-peopled country! What losses would sometimes be occasioned by gluts,—what privation, at other times, by scarcity,—if the channels for information were closed by which the wants of each community are now regularly made known to every other! Nor would it be found the least among the misfortunes which such an accident would bring about, that the anxieties of friendship and affection on account of those from whom we might be separated would then be susceptible of only precarious relief. But it is unnecessary to enlarge upon this topic, since everybody must acknowledge that the destruction of our Post-office system would inflict upon the social body one of the heaviest blows that it is capable of receiving.

In a very early stage of society, the rulers of every country would perceive the necessity of employing messengers for the transmission of their orders and laws to every part of their dominions; and as this necessity would be constantly recurring, it would soon be found advantageous—if not indeed indispensable—to organize a system by which the labour of such a service might be diminished, and its details simplified. At first, special messengers would probably be sought for as each occasion for employing them arose. The next step would be to appoint professional couriers, and to assign particular stations or *posts* between which each of these couriers should pass, delivering their despatches from one to the other so as to insure certainty and celerity in their transmission. It would not be long before individuals, seeing the benefit accompanying this institution, would be desirous of profiting by it for the transmission of their own correspondence, and would willingly pay a compensation to the sovereign for such a privilege. Posts thus established must be considered as at once marks of civilization and means for extending it. It can only be in an advanced condition of society that the private correspondence of a country would be so increased that the conveyance of letters would come to be a source of revenue to the state. The Roman emperors established Posts, and the same institutions are described by Xenophon as existing in Persia in the time of Cyrus. But such arrangements must have borne but small resemblance to the systematic plans in operation at present for the conveyance of intelligence both public and private. In fact, it is only in times comparatively modern that the public convenience has required such institutions, or that they could have been made to support themselves. Three centuries ago the couriers, or foot messengers, that were employed in Europe for the conveyance of letters from one person of distinction to another, made their way slowly and laboriously over countries thinly

populated, and almost without roads. It is the same at the present day in the wild districts of South America.

Humboldt informs us, in his '*Vues Pittoresques des Cordillères*,' that, in order to maintain a post communication between the shores of the South Pacific and the province of Jaén de Bracamoros, Indians are employed, who during two days descend the river Guancabamba, or Chamaya, and afterwards the Amazon river as far as Tomependa. The courier, before he commits himself to the water, wraps the few letters, with which he is charged monthly, sometimes in a handkerchief, and at other times in a species of drawers called *guayuco*, and this he disposes in the form of a turban round his head. In this turban he also places the large knife or cutlass with which he is always provided, less as a means of defence than to assist him in clearing the underwood while making his way through the forests. The Guancabamba is not navigable, by reason of a great number of falls and rapids; these the postman passes by land, taking again to the water as soon as all danger from them is over. To assist him in swimming, the Indian provides himself with a log of very light wood, generally the trunk of the bombax. These men, who are known in the country as the swimming-couriers—*el correo que nada*, have no occasion to encumber themselves with provisions, their wants being abundantly supplied by the hospitable inhabitants of the cottages which they pass on the banks of the rivers.

Louis XI. of France, by a royal ordinance, dated the 19th of June, 1464, established a system of posts in that kingdom, but only for the particular use of the court, and that he might be the sooner and more certainly informed of any political movements in his own kingdom and in neighbouring states. In the beginning of the thirteenth century pedestrian messengers were maintained as a part of the establishment of the University of Paris, and these messengers were employed in conveying money and letters to and from that capital for the students of the university, who were at that time collected there from almost every country of Europe. The first organized plan for the transmission of private correspondence in France was formed in 1619, when a public letter-office was opened. A few years earlier than this last-mentioned date, the Count de Taxis established posts in Germany, at his own expense and as a private speculation. The scheme was, however, soon adopted by the government, on which occasion the Emperor Matthias, in acknowledgment of his public spirit, gave to the Count, in lieu of the charge of postmaster under himself and his successors. This was in 1616.

Posts, for the accommodation of travellers, certainly existed in England before the middle of the sixteenth century; for, by the 2nd and 3rd Edward VI., cap. 3, (1548,) the rate at which post-horses might be charged was fixed at one penny per mile. There was a chief postmaster of England in the reign of Elizabeth (anno 1581); and we learn from the '*Fœdera*,' tom. xix., p. 385, that the office of postmaster for foreign parts was first created by her successor, James I. The Post-office erected by that monarch, and which was placed under the management of one Matthew de l'Equester, was employed for the conveyance of letters to and from foreign countries. On the authority just quoted, we are told that this office of postmaster for foreign parts was confirmed by Charles I. in 1632, to William Frizell and Thomas Witherings, and the object of their appointment is declared to be "the better accommodation of the English merchants." In the same reign a letter-office for England and Scotland was placed under the management of the said Thomas Witherings, and the rates of postage to be charged were settled by the royal authority. This was in 1635, but this convenience was afforded to only a few of the

principal roads, and there was no certainty as to the times of departure or receipt of letters committed to it. Withering, having been charged with abuses in the administration of his offices, was superseded in 1640, on which occasion their direction was committed to Philip Barlamacky, but subject to the control of the king's principal Secretary of State. In the confusion occasioned by the breaking out of the civil war, considerable interruption was necessarily occasioned in the management of the Letter-office. The advantages of the institution had, however, become sufficiently apparent at that time to prevent its falling into disuse, and the matter was speedily taken up by Parliament. Mr. Edmund Prideaux, who held the appointment of Attorney-General to the Commonwealth, was appointed postmaster by a resolution of both Houses of Parliament. This gentleman had acted as Chairman of a Committee of the House of Commons to which the subject of the Post-office had been referred, in order to determine the rates of postage that should be set upon inland letters. In the execution of his office, Mr. Prideaux first established (in 1649) a weekly conveyance of letters into all parts of the kingdom, on a plan whereby he could dispense with the services of several postmasters, whose salaries had amounted to 7000*l.* per annum.

In the same year the Common Council of the city of London attempted to establish another Post-office in opposition to that conducted by Prideaux; but this speculation of the citizens was checked by the House of Commons, who declared, by a resolution passed the 21st of March, 1649, that "the office of Postmaster is and ought to be in the sole power and disposal of Parliament." The office was remodelled by Parliament during the Protectorate, and rates of postage were then adopted which were continued until the reign of Queen Anne. The inviolability of private correspondence was by no means recognised even by so popular an assembly as the Commons' House of Parliament during the Protectorate. So openly, indeed, was the contrary doctrine avowed, that we find it stated in the preamble to an ordinance of 1657, as a strong recommendation in favour of the institution of posts, that "they will be the best means to discover and prevent many dangerous and wicked designs against the Commonwealth." Whether any particular and responsible officer was then exclusively permitted to examine suspected correspondence, does not appear. In the present day any letters particularly designated may be detained in the Post-office, and even opened, by virtue of a warrant from any one of his Majesty's principal Secretaries of State, a proceeding which is not likely to be taken except on very strong grounds; while any similar violation of the trust reposed in the Post-office, if committed without this warrant, has been rendered highly penal by act of Parliament. Some further improvements were introduced after the Restoration, by the act 12 Car. II. cap. 35, under which the king was empowered to "settle a Post-office and appoint a governor."

The progress of this important political and commercial engine appears to have been very rapid about this time. Before Mr. Prideaux's appointment, the establishment had cost 7000*l.* per annum beyond its income. In 1653 the Post-office revenue for England, Scotland, and Ireland was farmed at 10,000*l.* per annum. At the time of the Restoration it brought in double that sum. By the Act 15 Car. II., cap. 14, this branch of the public income was settled upon the Duke of York, afterwards James II., and his heirs male; and, in the year of that king's accession, a further act declared that this revenue, which then amounted to 65,000*l.* per annum, should belong to the king and his successors, as part of their private estate for ever, and that consequently it should not be ac-

counted for to parliament. This grant was resumed by the legislature at the Revolution; and in 1699 the revenue derived from the Post-office brought upwards of 90,000*l.* to the Exchequer. During all this time the same rates of postage had been levied, so that the growth of revenue gives an accurate measure of the constantly increasing utility of the institution. The rates have since that time been frequently increased, but the amount of correspondence throughout the kingdom has, notwithstanding, been multiplied in a still greater degree.

In the year 1792, at the breaking out of the war consequent upon the French Revolution, this branch of public revenue produced 368,970*l.* to the Exchequer; in 1801, the year of the Peace of Amiens, the sum realized from that source was more than doubled; being 843,976*l.*; and in 1814, the year of the Treaty of Paris, 1,532,153*l.* was the net amount of revenue arising from the postage of letters. Since that time, the income from this source has not increased. The year 1825 produced the largest amount of Post-office revenue, it having then reached 1,670,219*l.*; and in each year since the sum has been between 1,500,000*l.* and 1,600,000*l.*

The utility of the Post-office, even as a source of revenue, must not be appreciated solely by the amount of money which it yields directly to the state, since it must be considered also as auxiliary to other branches of public income. An institution by which the facility of frequent, punctual, and quick communication is secured to the country, has higher claims to consideration than as a merely financial object; it is essential to the purposes of government, may be made to subserve all the ends of national policy, and is necessary to the daily comfort and convenience of almost every individual in the kingdom. It has been justly remarked that, "in a prosperous state of the country, the productiveness of this branch of revenue, in a financial calculation, will be measured by the proportion in which, under judicious management, the institution is made to contribute to the interests, the convenience, and the habitual indulgence of the community."

There cannot be a stronger proof of the truth of this remark than is furnished by the history of the British Post-office during the last years of the eighteenth century. The improvements suggested by Mr. Palmer in the mode of circulating letters through Great Britain and Ireland, were, after much opposition, first partially introduced in 1784; and were fully carried into practice, as regards England, within the two following years. In the twenty years that followed the adoption of Mr. Palmer's plan, the gross annual receipts of the Post-office department were trebled, and, by economical arrangements, its net produce was very nearly quintupled. This extraordinary increase is no doubt in part to be referred to the peculiar circumstances of the country, which, during the greater part of the period just mentioned, experienced a high degree of excitement in all its branches, both political and commercial, far beyond what it had ever previously undergone; but this remark hardly applies to the period that preceded the war of 1792, in which year the net revenue of the Post-office was already double what it had been in 1784.

The improvements suggested and carried into effect by Mr. Palmer were so simple in their character, and of so very obvious a nature, as to render it surprising that it should have been left to an individual unconnected with the establishment to suggest them. Still more difficult is it to account for the fact that, when once suggested, their simplicity and reasonableness did not at once overcome even official prejudices, or at least check that avowed opposition by which even a trial of them was sought to be prevented.

Mr. Palmer, who was a proprietor of the theatre at Bath, observed that the Post which left that city on



[The Swimming Couriers of Peru.]

Monday night, did not deliver its letters in London until 2 or 3 o'clock in the afternoon of the following Wednesday, and sometimes even later; the letters were then delivered in London at different times of the day, as each post arrived. On the other hand, the Diligence coach, which left on Monday afternoon, arrived in time sufficiently early for the delivery of packets by 10 o'clock on the Tuesday morning. The charge upon a single letter sent by the post from Bath to London was then only four pence, and the expense by the Diligence, for booking, carriage, and portage, amounted to two shillings; but so important was it found by the tradesmen of Bath to insure an early delivery of their letters, that not only were they generally willing to incur this larger charge by sending their letters in the form of coach parcels, but the porters of the inn whence the packets were delivered were usually stimulated to extra haste by the promise, in that case, of an additional payment, and which promise formed part of the direction.

The slow rate of travelling here mentioned was by no means peculiar to the Bath mail. The post of Monday night from London reached Norwich, Worcester, or Birmingham, only on Wednesday morning, and did not arrive at Exeter until Thursday morning at 9 o'clock. Dr. Oeland, in his 'Statistical Account of Glasgow,' tells us that before the introduction of mail coaches into that part of the kingdom in 1788, the course of post from London to Glasgow was five days, the letters being then carried round by Edinburgh. This writer mentions a curious circumstance, which shows how slowly improvement was allowed to proceed in those days. Only five London mails had usually arrived in Glasgow during the week, it not being customary to receive or despatch letters at or from Edinburgh on Sunday; but when the mail-coach conveyance had been brought under Mr. Palmer's improvements as far as Carlisle, it occurred to the managers of the Post-office that the sixth mail for Glasgow, which

the Sunday regulation of the Edinburgh Office prevented being passed through that medium, might be conveyed by the mail coach to Carlisle, and forwarded thence to Glasgow. By this means the sixth mail reached Glasgow in four days, while the conveyance of the other five continued, for a year beyond this time, to occupy five days. It appears to have required the whole of that time in order to discover that the five mails, which required five days to reach Glasgow by Edinburgh, might, like the sixth, be carried by Carlisle in four days.

The letter-bags from the Post-office were, previously to 1784, entrusted to boys who were ill-paid, and frequently of very doubtful characters. They travelled upon miserable horses, and were equally unable to defend themselves from the attacks of robbers, or to escape by flight. In fact, the waylaying of these boys for the purpose of robbery was at that time an affair of constant occurrence, and often not without suspicion of collusion on the part of the carriers.

The principal feature in the improvement suggested by Mr. Palmer was the discontinuance of this horse-post, and the employment of coaches, which, in consideration of their liability to attack from robbers, should each be provided with an armed man to guard them. It formed a part of the proposed improvement that the times of departure of the coaches bearing mails from places in the country should be so regulated as to insure their nearly simultaneous arrival in London at an early hour of the morning, and that the whole should quit the metropolis at the same hour in the evening. The first mail coach upon Mr. Palmer's plan left London for Bristol on the evening of the 2nd of August, 1784.

As we have seen, the business of the London Post-office has grown up from very small beginnings. At first a house of moderate size was found to afford sufficient accommodation for carrying forward all its details. As the magnitude of these increased, additions were

from time to time made to the building, and adjoining houses were adapted and occupied; but at length these expedients would no longer avail. The establishment outgrew every possibility of sufficiently enlarging the premises; and it became absolutely necessary to exchange the confined and incommodious apartments which had long been occupied in Lombard Street, for a building which, being expressly erected for the purpose, should afford conveniences and facilities unattainable in the former office. Accordingly, in 1815, an Act of Parliament was passed, authorizing certain commissioners to make choice of a convenient site, and to grant compensation to the parties whom it would be necessary to eject, in order to make room for the new building.

A very considerable time was expended in this preliminary business of clearing and preparing the ground, so that the first stone was not laid until May, 1824; and it was only on the 23rd of September, 1829, full fourteen years after the passing of the Act of Parliament just mentioned, that the new building was completed and opened for the transaction of business. The situation chosen is exceedingly convenient, being nearly in the heart of the metropolis. The building stands at the junction of St. Martin's-le-Grand with Newgate Street, and very near to St. Paul's Cathedral. The perspective view which we have given of the principal front, presents a faithful representation of its elevation. It will be seen that this front is composed of three porticos of the Ionic order of architecture, one of four columns being placed at each end, and one of six columns forming the centre; this last is surmounted by a pediment. On the frieze, over the columns of the centre portico, is the inscription *GEORGIO QUARTO REGI, MDCCLXXIX*. The great value of the ground and buildings in this populous part of the city has occasioned the area upon which the New Post-office is built to be of very limited extent. The street in which the principal part is placed, is tolerably wide; but the sides to the north and south, and the back front in Foster Lane, are all closely beset with houses.

The building is about 359 feet long, 130 feet wide, and 64 feet high; it is built externally of Portland stone, and, with the exception of the principal front, is entirely plain, and without any attempt at architectural display. The entrances to the building are through the central portico in the west or principal side, and by a corresponding doorway in the east front in Foster Lane. The space between these two points is occupied by the Grand Public Hall, which is 80 feet long, by about 60 feet wide, divided into a centre and two aisles, by two ranges of six columns, in the manner shown in the engraving at page 40; these columns, which have corresponding pilasters, are of the Ionic order, constructed of Portland stone, and standing upon pedestals of granite. The centre of the hall is so much higher than the side aisles as to admit of the insertion of windows, also shown in the engraving, and by which it is principally lighted.

Entering from the principal front, the offices on the right hand are appropriated to the Foreign-letter and Twopenny Post departments, the Receiver-general's, the Accountant's, and the Secretary's apartments. On the opposite, or northern, side are the Inland, the Ship-letter, and the Newspaper offices. At the eastern, or Foster Lane, end of this aisle, is a staircase leading to the Letter-bill, Dead, Mis-sent, and Returned Letter offices. In the eastern front, north of the centre, is a vestibule where the letter-bags are received, and whence they are despatched from and to the mails. The Inland office communicates with this vestibule, and is 88 feet long, 56 feet wide, and 28 feet high. The Letter Carriers' office, which adjoins, is 103 feet long, 35 wide, and 33 high. The letters to and from the West Indies,

and the Continent of North America, have an office expressly appropriated to them, and which is likewise on this side of the building. The Comptroller's and Mail-coach offices are also in this quarter.

It might occasion some confusion if the communication between the offices in the northern and southern divisions of the building were carried on through the public hall. This disadvantage is obviated by means of a tunnel, which runs under the hall, in which the letters are conveyed between the departments by the aid of ingeniously contrived machinery.

The basement is vaulted, and consequently fire-proof. It contains the Armoury and Mail-Guards' room, the Servants' offices; and also an apparatus for warming the building by means of heated air, a patent gas-meter, and a governor for regulating the supply of gas to between 700 and 800 Argand burners distributed through the offices and passages.

The Board-room, which is 37 feet long and 24 feet broad, the Secretary's rooms and his clerks' offices, are all on the first floor, and communicate by long passages with the Solicitor's offices, and some others of minor importance. The second and third stories are occupied by sleeping apartments for the clerks of the foreign-letter office, who are obliged to be constantly upon the spot to receive the foreign mails, which arrive at all hours.

The building is altogether exceedingly well arranged for the convenience of the public, as well as the officers employed in its various departments, and is creditable to the taste and judgment of the architect, Mr. Smirke.

The London Post-office establishment comprises three principal departments, the Inland office, the Foreign office, and the Twopenny Post office. In connexion with the Inland office is the Ship-letter office, for receiving and despatching letters for the colonies and foreign parts by private trading vessels, the letters so conveyed being subjected to a less rate of postage than letters transmitted by packets in the pay of Government. Letters passing to and from the colonies come, likewise, within the management of the Inland office, in London; being received in the first instance at an out-post, generally Falmouth, whence they are forwarded by the local postmasters, in the same manner as inland letters.

The routine business of the Inland office is necessarily divided among several departments. The principal of these, besides the Ship-letter office, are the Bye-letter, the Dead-letter, the Returned-letter, the Letter-bill, the Accountant-general's, and the Receiver-general's offices: the latter of these officers acts as a check upon the Postmaster-general, and consequently the appointment of the Receiver-general rests not with the Postmaster-general, but with the Lords of the Treasury. The Receiver-general holds his office by patent.

It will perhaps exemplify sufficiently our description of the various functions of the different officers employed in the Post-office, if we describe the ordinary routine which is followed in the daily receipt and despatch of letters to and from London.

In addition to the principal office in St. Martin's-le-Grand, there are several branch offices and receiving houses in different parts of the town, where letters can be deposited by the public. These letters are collected by the letter-carriers at a stated period in the evening, which must of course be earlier than the hour to which the principal office is continued open; and they are conveyed in sealed bags—generally by carts—to St. Martin's-le-Grand. The seals of these bags are broken by persons appointed for the purpose; and their contents are thrown out into great baskets, preparatory to their being sorted.

The first operation is that of stamping the letters: this is performed at several large tables, four or more persons, according to the pressure of business for the night, being employed at each table. This stamping is performed by messengers, or by the letter-carriers; and, as they are stamped, one person is employed to ascertain the number of letters that pass through the office in the evening.

When the letters are stamped, they are taken away to be assorted into about twenty divisions, on as many tables, corresponding with the lines of road by which they are to be sent. In this first sorting, all those letters are placed together which are intended for the same line of road, the different heaps being distinguished by numbers, as 1, 2, 3, &c.; and persons are employed continually in collecting together the corresponding heaps from all these tables in order to their being conveyed to other tables where other sorters are employed. A certain number of individuals are assigned to every road, and by them the letters are again assorted for the different places to which they are directed. By this division of the labour the work is much simplified. It would, indeed, be hardly possible to divide at one operation so great a number of letters, intended for so great a variety of places, as are brought together every evening in the London Post-office.

The next operation is that of placing the assorted letters in bags, previously to which, however, every letter is marked with the amount of postage to which it is liable; and an account is taken of the whole amount of postage, that the postmaster of the town to which they are going may be charged with the same. The bags are then sealed, and delivered into the custody of the mail-guards. Each of these guards, of course, takes charge of the mail-bags for every post-town through which the mail-coach, with which he travels, is to pass; and, to avoid confusion, he places the whole number of bags in a large sack, arranging them in the inverse order to that in which they are to be delivered. For instance, the Dover coach takes the mails for Welling, Dartford, Rochester, Sittingbourne, and Canterbury, as well as for the place of its ultimate destination. The Dover bag is therefore placed in the bottom of the sack,—that for Canterbury next,—then the Sittingbourne bag, and so on; the one for Welling, which will soonest be wanted, being placed nearest to the mouth of the sack. The coaches which travel to greater distances, and which pass through a great number of post towns, must carry several of these sacks, which are always unsealed, for the greater convenience of taking out the bags on arrival at the different towns.

From the moment they are delivered into his custody, the guard is held responsible for the safety of the letter-bags. The box in the hind part of the coach, in which they are placed, is secured by a patent lock, the key of which is, of course, in the guard's possession. On arriving at a post-town, the bag intended for it is delivered into the custody of the postmaster, who, in his turn, commits to the guard any letters which may have been deposited in his office, directed to places through which the mail will pass; and these additional bags are immediately locked up in the coach.

The mode of proceeding with letters sent from the country to London is similar to what has just been described. They are stamped and *taxed*,—that is, the amount of postage charged is marked upon them by the postmaster,—by whom they are then enclosed in sealed bags and given into the custody of the guard.

The arrival of the mail coaches in London from almost all parts of the country takes place, as already mentioned, as nearly as possible at the same time. In the ordinary state of the roads the whole of these coaches usually

reach the Post-office within half an hour of each other, and between 5 and 6 o'clock in the morning.

The bags are brought on their arrival by a messenger to certain junior clerks called Tick Clerks, who take an account of them to see whether all are received, and to make a note of any that may be missing, for the information of the superintending president. The bags of each mail coach, successively as they arrive, are then distributed amongst fourteen clerks, two of whom are stationed at each of seven tables. The first duty of these clerks is to see that each bag is properly secured; each clerk then opens the several bags allotted to him. His next duty is to ascertain that the amount of the paid letters is correctly entered upon the bill which the postmaster transmits from the country in each bag, and to certify that he has done so by writing his initials upon the bill. In case of error a second clerk is applied to, to check the computation, and the true charge is entered in a book kept for the purpose. It is also the duty of the fourteen clerks to make transcripts in a book of the addresses of letters containing cash or trinkets, which the postmasters are instructed to enter upon their bills.

While the openers have been thus engaged, the unpaid and free letters will have been undergoing the process of being stamped and subsequently examined, the former as to the rates of postage taxed upon them, and the latter as to the number of franks, by different persons stationed for each purpose at the respective tables. If any overcharge or undercharge be discovered, the correct rate of postage is substituted upon the letter, and an entry made of the amount of the corrections in a book kept for the purpose.

The business of stamping unpaid letters is performed by sixteen messengers. The paid letters, when checked, as above mentioned, by the opening clerks, are given over to be stamped and examined by two other clerks.

Portions of the letters, as they have undergone the process of stamping and examination, are, from time to time, delivered to letter-carriers, who are employed in the assorting of them, which in the first place is effected into fourteen grand divisions; immediately after which the letters are taken by other letter-carriers, who sort them in divisions corresponding with the districts of actual delivery. In the progress of this sorting, the letters are sent in small parcels to the tellers, who cast up the amount of each parcel, and deliver a ticket of each charge to the check clerk. These parcels are then deposited in boxes provided for each district, and subsequently retold by the letter-carrier, by whom they are to be accounted for; and he states the amount of his telling to the check clerk, to see that it corresponds with the tellers' tickets. The carriers then set out in order to deliver the letters; and in order to expedite this business as much as possible, a plan was first put in operation when the New Post-office was opened for business. Those letter-carriers whose walks are at a considerable distance from the office, take their stations in carriages built something in the form of an omnibus, and are conveyed as near as possible to the scene of their duties. The postmen are packed in these carriages after the same principle adopted in placing the mail bags in the sack; the man who has the greatest distance to go gets first into the carriage, while he who is to quit it the earliest gets in the last. By this contrivance there is much less difference than formerly between the time of delivering letters at the near and the more distant parts of the town; while the greater convenience afforded by the enlarged space and well-considered arrangements of the new office have occasioned the sorting and other preliminaries to be got through in much less time than formerly.

The rates of postage at present payable upon inland

letters in the United Kingdom, stated according to the distance they are conveyed, are these:—

For any distance not exceeding 15 miles from the office where they are despatched	4d.
For any distance above 15 miles and not exceeding 20 miles	5
" 20 " "	6
" 30 " "	7
" 40 " "	8
" 80 " "	9
" 120 " "	10
" 170 " "	11
" 230 " "	12
" 300 " "	13
" 400 " "	14

and so in proportion. These rates are for single letters. Double and treble letters are charged respectively two and three times the amount; and when a letter weighs one ounce it is charged four times the rate of postage to which a single letter is liable. All larger packets are charged in the same proportion, each addition of a quarter of an ounce in the weight rendering them liable to an additional single rate of postage.

Until a recent period, the officers of the Post-office were authorized to consider as a double letter every single sheet of paper which, in addition to its epistolary contents, comprised an account, bill of lading, receipt, or any similar document; but by the act 7th and 8th Geo. IV. cap. 21, this grievance (for so it was felt by the trading part of the community) was remedied; and a single sheet of paper, no matter how occupied, is now charged only with a single rate of postage.

In France, and many other parts of the Continent, a mode of charging postage is adopted different from that pursued in this country, the amount being made, in every case, to depend upon the weight and not upon the number of pieces of paper contained in the letter. One consequence of this is to occasion the use of very thin paper.

Letters conveyed by packet-boats from England are liable to certain rates in addition to the charge for the distance they are conveyed by land: these additional rates are—

Between Holyhead and Dublin	3d.
" Milford and Waterford	2
" Port Patrick and Donaghadee	4
" Great Britain and the Isle of Man	6
" Great Britain and Guernsey and Jersey	3

The rates chargeable on single letters sent from London to foreign parts and to our Colonial possessions, are as follows:—

	s.	d.		s.	d.
France	1	2	To Mediterranean	3	2
Italy	1	11	Gibraltar	2	10
Turkey	1	11	Ditto, via Franco	2	2
Ionian Islands	1	11	Brazils	3	6
Ditto, by packet	3	2	Buenos Ayres	3	6
Spain	2	2	Carthagena, Mexico,		
Germany	1	8	Havana, La Quayra,	3	0
Switzerland	1	8	and Honduras		
Russia	1	8	Madeira and the Can-	2	7
Prussia	1	8	nary Islands		
Denmark	1	8	Portugal	2	6
Sweden	1	8	Haiti	2	2
Norway	1	8	America and the		
Holland	1	4	West India Islands	2	2
Belgium	1	4			

The postage upon all letters intended for foreign countries must be paid at the office where they are put in, otherwise the letters will be opened and returned to the writers. This rule does not apply to letters sent to British colonies, or to any places where a British postmaster is stationed.

The Post-office is empowered under various Acts of Parliament to make up bags of letters to be sent to places beyond seas at one half of the regular rate of postage. These bags are made up at the Ship-letter Office in London, and at all the ports of the kingdom. The sum of twopence upon each letter is given to the

commander of the vessel in which the letters are sent, for his care and trouble in the conveyance. In these cases the letters are all put into sealed bags, and are consigned to postmasters, if to places where there is any English establishment of the kind, and to persons of known respectability where there are not such establishments. Very heavy penalties are imposed upon the commander of the vessel in case of his venturing to open a bag,—a circumstance which does not appear to have ever occurred.

The total number of persons employed in the business of the Post-office in England, is stated, in the eighteenth Report of the Commissioners of Revenue Inquiry (made in March, 1829), to amount to 4,905. Of these, 3,059 persons were officially entrusted with the receipt and delivery of letters in England, and are exclusive of the persons employed in London, and of 563 deputy postmasters in the country.

Spiritual and temporal peers, and representatives of the commons in Parliament, are each entitled to frank daily ten letters, the weight of each of which does not exceed an ounce, and they are allowed to receive daily fifteen letters free of postage, with the same limitation in regard to weight.

All the great officers of state are likewise privileged to send and receive letters by the post free of charge, and for the most part without any limitation in regard either to the number of letters or their weight. Several other official persons are authorized to frank letters, but only on the business of their respective offices. Under certain limitations, all papers printed by order of either House of Parliament pass through the Post-office free of charge; and it is well known that the like privilege is extended to the transmission of stamped newspapers.

There is not any regular account in existence, stating the Post-office revenue, earlier than 1724. In that year the net income of the institution was 96,339*l*. Its progress since, stated at intervals of five years, has been as follows, viz.

	£.		£.
1729	92,307	1781	196,513
1734	91,701	1789	318,610
1739	97,250	1794	463,003
1744	85,114	1799	733,150
1749	84,323	1804	952,893
1754	97,365	1809	1,213,019
1759	86,095	1814	1,512,153
1764	116,182	1819	1,528,538
1769	161,760	1824	1,588,672
1774	164,077	1829	1,509,347
1779	199,248	1832	1,457,192

The Report of the Commissioners of Revenue Inquiry, already referred to, contains some curious particulars which furnish an idea of the extent of the communications carried on through the Post-office of the British metropolis.

The total number of letters despatched by the mail coaches in three days of the month of May, 1828, distinguishing the letters which were put into the office in the City from those collected in the district west of Temple Bar, are stated to have been as follows:—

	East.	West.	Total.
Monday, May 19	19,952	16,436	36,388
Wednesday, — 21	15,880	15,215	31,095
Friday, — 23	15,961	11,821	30,785
Daily Average	17,264	15,492	32,756

The total number of letters received in London by the mail coaches on the same three days, distinguishing those destined for the City from those delivered west of Temple Bar, was as follows:—

	East.	West.	Total.
Monday, May 19	20,257	17,501	
Wednesday, — 21	12,619	10,951	
Friday, — 23	13,203	10,871	
Daily Average	15,360	13,107	28,467

In order to found upon the foregoing statements a calculation as to the total number of letters passing through the London Post-office in the course of the year, it appears necessary to consider the three days given as comprehending more than one half of the week, since the number of letters received and despatched on Monday comprise a great number that would have passed on the Sunday had the office been open.

Our space will not admit of inserting more of these details from the Report. We must content ourselves with stating the amount of postages collected in a few of the principal trading cities and towns of the United Kingdom during the years 1831 and 1832:—

	1831.	1832.
London . . .	£628,641	£637,178
Birmingham . . .	23,854	28,684
Bristol . . .	36,670	33,897
Hull . . .	15,030	14,603
Leeds . . .	20,963	20,315
Liverpool . . .	70,974	70,018
Manchester . . .	52,320	53,449
Sheffield . . .	11,163	11,026
Edinburgh . . .	42,621	42,758
Glasgow . . .	35,641	33,754
Dublin . . .	101,529	80,610
Cork . . .	10,769	11,511

We had intended to have given some particulars of the Twopenny Post Branch, but must defer this to a future Number.



[Hall of the New Post-Office.]

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VORACITY OF THE ADJUTANT.

ONE of the most voracious of carnivorous birds is the gigantic Crane, or, as it is called in India, the Adjutant (*Ciconia argala*, TEMMINCK); which does not, however, rank in systematic arrangements as a bird of prey. The structure of the stomach in the adjutant corresponds with this similarity in habit, though the solvent glands are differently formed from those of any other bird. These glands are not placed round the upper portion of the stomach, but form two circular figures, about one inch and a half in diameter, on the fore and back part of it, each gland being composed of five or six cells, and these opening into one common pipe. The gizzard and digestive muscle are nearly of the same strength with that of the crow, and the former is lined with a similar horny cuticle.



[The Adjutant.]

These birds are not only capable of digesting bones, as Spallanzani proved eagles and owls to be, but they seem to be fond of them, swallowing every bone which they can get down their gullet, whence they are denominated Bone-eaters. It has been stated by Sir Everard Home that there was found in the craw and stomach of one of these birds a land tortoise, ten inches long, and a large male black cat, entire. Mr. Smeathman, to whom we are indebted for several very interesting details in natural history, has given an account of this bird, which we think will furnish a good illustration of our subject. The adjutants, he tells us, "are met with in companies; and when seen at a distance, near the mouths of rivers, coming towards an observer, which they often do with their wings

extended, may well be taken for canoes upon the surface of a smooth sea; when on the sand-banks, for men and women picking up shell-fish or other things on the beach. One of these, a young bird about five feet high, was brought up tame, and presented to the chief of the Bannas, where Mr. Smeathman lived; and being accustomed to be fed in the great hall, soon became familiar, duly attending that place at dinner-time, and placing itself behind its master's chair frequently before the guests entered. The servants were obliged to watch narrowly, and to defend the provisions with switches; but, notwithstanding, it would frequently seize something or other, and once purloined a whole boiled fowl, which it swallowed in an instant. Its courage is not equal to its voracity, for a child of eight or ten years old soon puts it to flight with a switch, though

at first it seems to stand on its defence, by threatening, with its enormous bill widely extended, and roaring with a loud voice like a bear or tiger. It is an enemy to small quadrupeds, as well as birds and reptiles, and slyly destroys fowls or chickens, though it dares not attack a hen openly with her young. Every thing is swallowed whole; and so accommodating is its throat, that not only an animal as big as a cat is gulped down, but a shin of beef broken asunder serves it but for two morsels. It is known to swallow a leg of mutton of five or six pounds, a hare, a small fox, &c. After a time the bones are rejected from the stomach, which seems to be voluntary, for it has been known that an ounce or two of emetic tartar given to one of these birds produced no effect."—From '*Faculties of Birds*,' in *Library of Entertaining Knowledge*, just published.

THE "PLACE OF FIRE," AND NAPHTHA SPRINGS OF SHIRWAN.

THE basin of the Caspian Sea is narrowed in the south by the peninsula of Apcheron, on whose southern coast stands the fortified town of Baku, the port of which, though difficult of access, is considered the best and safest that sea affords. To this circumstance the town owes its present measure of importance, if not its first foundation. It belongs at present to the Russians, to whom it formed a very important acquisition; but it still retains the usual characteristics of a Persian town. About two miles to the north-east of the town, the gentle slope towards the sea of a low, rocky hill, the surface of which is composed of a sandy earth intermixed with stones, is distinguished as the "Atashgah,"

or "Place of Fire." The phenomena in this spot exhibit in mild, and even useful forms, the elemental eruptions, which are generally violent and destructive.

It is well known that a religious reverence was paid to fire by the ancient Persians; and this superstition is still retained by their descendants the Parsees, who now chiefly reside about Bombay in Hindostan, and at Yezd in Persia. These, and apparently some other natives of India, make long and weary pilgrimages to the "everlasting fire" of Shirwan, which they consider sacred, and where from thirty to forty of them may generally be found, subsisting chiefly on such roots as the neighbourhood produces. On their arrival they find several small and very ancient stone temples, or rather arched vaults, from ten to fifteen feet high.

These are enclosed by a low wall, and serve both as the chapels and residences of the devotees, by whom, however, the central structure, which is the largest, is peculiarly appropriated to religious uses. This spot has not unaptly been compared to a caravanserai; and each of the apartments is furnished with a fire, or, as Forster expresses it, "a small volcano," obtained by the ignition of the gas which issues from the ground, and which is conducted to some height above the surface through a tube or funnel inserted a few inches into the ground. The combustion is produced by the application of any burning substance to the extremity of the tube, by stopping which it is easily extinguished. The flame in the central chapel is, however, constantly burning; and the worshippers are persuaded that it has always done so since the flood, and will do so to the end of the world; and that if it were extinguished in this spot it would immediately re-appear in another. The flame is not much unlike that of spirits of wine. It is of a clear pale colour, without smoke, but accompanied by a sulphureous vapour, which greatly impedes the respiration unless the head is held below the surface of the flame. It is for this reason probably that the funnels are employed to raise the flame about three feet above the ground. When the flame is extinguished, a hollow sound is heard on applying the ear to the aperture, and the rush of a cold current of air is very sensibly felt. Besides being an object of adoration, the fire serves the devotees for their simple culinary processes, and enables them by its warmth to support the severity of the winter season in Shirwan. The air they imbibe has however an injurious effect on their health. After a short residence they acquire an emaciated appearance, and are oppressed by a hectic cough.

This gas seems to operate most powerfully within the enclosure, a square of about thirty yards; but it possesses considerable activity for nearly two miles around, and the flame is observed to be strongest in the most stony parts—in all which spaces, when the ground is turned up a little, or a perforation made, an air escapes which is easily kindled by the application of fire, and extends over any space of ground thus disturbed. It is hence employed to burn lime; and, in the houses, is used for light and fire, the ground being left unfloored for the purpose. When the flame is wanted, one or more holes in the ground are opened, and a tube of cane, or even paper, is inserted in each. Funnels of materials so combustible are not injured by the flame, provided the edges be cased with clay. To boil water in a pot, three or four such tubes are usually employed.

It appears that generally the application of foreign fire to the current of air is necessary to produce combustion. But at some distance from the temple, and almost equally venerated with the fire there, a natural cleft, about six feet long and three wide, burns incessantly; from which it would appear that in the larger evaporations of the fluid spontaneous combustion takes place.

In other parts of the same province are found springs of black and white naphtha, from which a considerable revenue accrues to the government. The white naphtha is obtained in much smaller quantities than the black, and is of thinner consistence, and an article of much superior value; it floats thinly on the surface of certain springs or ponds, chiefly in the peninsula of Apcheron, and is collected and preserved in jars. The Russians, Persians, and Hindoos, concur in entertaining a very high opinion of the cordial and medicinal virtues of this substance. It is taken internally as a remedy for a considerable list of disorders, and is applied externally for the cure of scorbutic and rheumatic pains. It also furnishes a very fine and durable japan, and is employed to extract grease spots from silks and woollens.

The pilgrims from India are accustomed to take back with them some of this substance as a valuable rarity, the imputed virtues of which they like to attribute to the sacredness of the soil from which it is taken. The black naphtha, or bitumen, is produced in the same manner, but generally on large pieces of water, on which it floats as a scum, three or four inches thick, and of the consistence of tar. The springs usually boil up about two or three feet, but in thick weather they boil higher, and the naphtha then frequently overflows the basin, and sometimes, kindling on the surface of the earth, runs into the sea, where it spreads flaming to a great distance. As this substance is generally produced without the limits of the Land of Fire, it has not obtained credit for such high virtues as the white naphtha; but, in the general uses of life, it is of far more importance. It is collected in great quantities, and forms to the people of Bakan a covering for the flat roofs of their houses, which is very durable, and impenetrable to the rain. To the poor people in the neighbouring districts it supplies the place of oil for their lamps; and, as the country is but scantily furnished with wood, they use it, mingled with sand and ashes, for fuel. For such purposes it is preserved in jars, which are kept underground, at some distance from the house, in order to prevent the accidents which its susceptibility of ignition might occasion.

The reader will not be uninterested if we notice, in conclusion, some phenomena in this country, not altogether unlike those we have been describing, and which are taken from the 'Philosophical Transactions.' At Broseley, in Shropshire, and about thirty yards from the river Severn, a spring was found, in 1711, which burned with great violence, but was afterwards lost for several years. The person to whom the land belonged, and whose income had been increased by showing it to visitors, applied his utmost endeavours to recover it, but did not succeed until May, 1746, when a rumbling noise under ground, about thirty yards nearer to the river, and in a lower situation, directed him to it.

It was soon after this, that Mr. Mason saw the well, and describes it as six or seven feet wide, to four or five feet below the surface. At this point a hole of the same depth had been dug to receive an earthen cylinder, open at both ends, and four or five inches in diameter, around which the clay had been firmly rammed in. This pot contained a brown water, as thick as puddle, continually forced up with a violent motion, greater than that of boiling water, the alternate rise and fall being about six inches, accompanied by a hollow, rumbling noise. There was no appearance of vapour, though Mr. Mason conjectured it might have been perceived but for the bright shining of the sun. A candle was put down at the end of a stick, and combustion took place when it was held about eighteen inches from the water; the flames darted and flashed in a very violent manner for about half a yard high, much in the way of spirits in a lamp, but with greater agitation. The proprietor said that a tea-kettle had been made to boil over this flame in about nine minutes; and that he had left it burning for forty-eight hours together without any sensible diminution. It was extinguished by placing a wet mop upon it; and on its removal, a sulphureous smoke succeeded, and continued for about a minute. The water after the burning, and on all other times, was very cold to the touch.

Concerning this well, a gentleman writes in 1761, that when he was on the spot, eight years previously, the cylinder had been taken up, or otherwise destroyed, and the well appeared only as a miry hole of clay. Other waters had been suffered to mingle with those of the burning spring; but though the effect was by this means considerably diminished, it was not wholly destroyed; for upon the application of a piece of lighted

paper, a stream of clear flame shot up, which soon went out of itself.

A somewhat similar account of a well at Ancliff, near Wigan, in Lancashire, is given in the second volume of the 'Philosophical Transactions, in the year 1667,' and in the 'Penny Cyclopædia,' vol. i., with this remarkable addition, 'that when, for the sake of experiment, the water was diverted, ignition took place as before, on the application of flame to the earth, showing that the combustible principle in such cases is not in the water, but, as at the Atashghah, in the gas, generated within the earth, which escapes at those points.'

ENGLISH MANAGEMENT OF DRAUGHT HORSES.

THE 'Quarterly Review,' No. 100, contains a very interesting article on 'The German Watering-places,' which article introduces to the notice of the English public an author, who, if we mistake him not, has been a great favourite with them—we mean Sir Francis Head, the well-known writer of 'Rough Notes, taken during some rapid journeys across the Pampas, and amongst the Andes.' The "rapid journeys," which he described with unusual spirit, were made on horseback; and to this adventurous traveller a ride of a thousand miles in eight days was little more than a gallop to Epsom or Ascot is to ordinary men. Such an author is no mean authority on the subject of horses; and we have, therefore, much pleasure in widely circulating an extract from his new book, as given in the 'Quarterly Review,' in the conviction that there is much to be corrected in the common management of the English draught horse:—

With regard to the management of horses in harness, perhaps the most striking feature to English eyes is, that the Germans intrust these sensible animals with the free use of their eyes. "As soon as, getting tired, or, as we are often apt to term it, 'lazy,' they see the position threaten them with his whip, they know perfectly well the limits of his patience, and that after eight, ten, or twelve threats, there will come a blow. As they travel along, one eye is always shrewdly watching the driver: the moment he begins his slow operation of lighting his pipe, they immediately slacken their pace, knowing as well as Archimedes could have proved, that he cannot strike fire and them at the same time; every movement in the carriage they remark; and, to any accurate observer who meets a German vehicle, it must often be perfectly evident that the poor horses know and feel, even better than himself, that they are drawing a coachman, three bulky baronesses, their man and their maid, and that to do this on a hot summer's day is no joke." Now, what is our method? "In order to break in the animal to draught, we put a collar round his neck, a crupper under his tail, a pad on his back, a strap round his belly, with traces at his sides; and, lest he should see that, though these things tickle and pinch, they have not power to do more, the poor intelligent creature is blinded with blinkers, and in this fearful state of ignorance, with a groom or two at his head, and another at his side, he is, without his knowledge, fixed to the pole and splinter bar of a carriage. If he kicks, even at a fly, he suddenly receives a heavy punishment which he does not comprehend; something has struck him and has hurt him severely; but as fear magnifies all danger, so, for aught we know or care, he may fancy that the splinter-bar which has cut him is some hostile animal, and expect, when the pole bumps against his legs, to be again assailed in that direction. Admitting that in time he gets accustomed to these phenomena—becoming, what we term, steady in harness—still, to the last hour of his existence, he does not clearly understand what it is that is hampering him, or what is that rattling noise which is always at his heels:—the sudden sting of the whip is a pain with which he gets but too well acquainted, yet the 'unde derivatur' of the sensation he cannot explain—he neither knows when it is coming nor what it comes from. If any trifling accident, or even irregularity occurs—if any little harmless strap which ought to rest upon his back happens to fall to his side—the unfortunate animal, deprived of his eyesight, the natural lanterns of the mind, is instantly alarmed; and though from constant heavy draught he may literally, without metaphor, be on his last legs, yet if his blinkers should happen to fall off, the sight

of his own dozing master, of his own pretty mistress, and of his own fine yellow chariot in motion, would scare him so dreadfully, that off he would probably start, and the more they all pursued him the faster would he fly! I am aware that many of my readers, especially those of the fairer sex, will feel disposed to exclaim, Why admire German horses? Can there be any in creation better fed or warmer clothed than our own? In black and silver harness, are they not ornamented nearly as highly as ourselves? Is there any amusement in town which they do not attend? Do we not take them to the Italian Opera, to balls, plays, to hear Paganini, &c., and don't they often go to two or three routs of a night? Are our horses ever seen standing before vulgar shops? And do they not go to church every Sunday, as regularly as ourselves? Most humbly do I admit the force of these observations; all I persist in asserting is, that horses are foolishly fond of their eyesight; like to wear their heads as nature has placed them; and have bad taste enough to prefer dull German grooms and coachmen, to our sharp English ones."

BALBEC.

NEXT in renown to Palmyra, among the ruined cities of the ancient world, is Balbec, situated in the same region, the extraordinary fate of which has been, to be first the seat of luxury and magnificence almost unparalleled, and then, as if the curse of Heaven had fallen upon it, to be reduced to little better than a desolate wilderness. It is man, however, and not nature, that has wrought the change; no blight has seared the soil or poisoned the air, but a degrading despotism has as effectually dried up the sources of social prosperity as if some elementary convulsion had suddenly turned the clime of beauty cold and dark, and struck the teeming earth with hopeless barrenness. Indeed, Turkish oppression has done what no unkindness of nature could have effected. The splendours of Palmyra rose under the breath of a free commerce in the midst of a sandy desert; but nothing has been able to preserve that and many other great cities from crumbling into heaps of ruins at the death-touch of the gloomy tyranny that now hangs like a pall over the land.

We are indebted for the most complete account of Balbec, as for that of Palmyra, to Mr. Wood and his friends, who, after visiting the two cities, gave to the public, in successive volumes, most accurate and splendid delineations of everything they had seen in each, accompanied with historic notices and short descriptions. It was on their return from Palmyra that they proceeded to Balbec, which lies almost on a line drawn from the former city due west to the sea. It is, however, a little to the north of Palmyra. The spot in which it is placed is in one of the valleys of Mount Libanus, (the Lebanon of Scripture,) now called the Plain of Bocat, a fertile and well-watered opening to the sea, which forms its south-western extremity, while Balbec stands immediately under the high ground which closes it in the opposite direction. Its breadth, from Mount Libanus to Mount Anti-Libanus, varies from four to two leagues.

Balbec is situated, as nearly as possible, half way between Damascus to the south-east and the port of Tripoli, in Syria, to the north-west. When Wood was there in 1751, the place contained about 5000 inhabitants, among whom were a few Jews and Christians; but later accounts describe its population as greatly reduced. The collection of miserable huts which form the modern town, probably do not now harbour more than a thousand half-savage Arabs.

Ancient writers, in general, are as silent respecting Balbec as respecting Palmyra. But it is no doubt the same city which Macrobius, in his Saturnalia, mentions under the name of Heliopolis of Coele Syria, and to



[Ruins of the City of Balbec.]

which he tells us the worship of the sun was brought, in very remote times, from the other city of the same name in Egypt. Heliopolis in Greek means the City of the Sun; and the signification of the Syriac term Balbec is the Vale of Bal, the oriental name for the same luminary when worshipped as a god. It is probable that Balbec was the ancient, as it is the modern, name of the place, although, from not having been mentioned, like Tadmor, the old name of Palmyra, in the Hebrew Scriptures, it has come down to us only in the form of the Greek translation, Heliopolis.

The universal tradition of the country, Wood informs us, is that Balbec, as well as Palmyra, was built by Solomon. Many stories, it seems, are told by the inhabitants of the manner in which the celebrated Jewish king spent his time in this retreat. Some critics have supposed that some building at Balbec may possibly be that spoken of in his writings as "the Tower of Lebanon that looketh toward Damascus." One of the stories current on the spot is that the city was built by him as a residence for the Queen of Sheba. It is believed, of course, that in this, as in all his other similar undertakings, the wise monarch availed himself of the agency of genii or spirits.

The ruins of the ancient magnificence of Balbec do not present a crowd of fallen edifices, spread over a large extent of space, like those of Palmyra: they consist only of three distinct buildings, which stand not far from each other, in a plain at a short distance from the inhabited part of the town. The cut which we have given, copied from a much larger engraving in Mr. Wood's volume, presents a view of these buildings, with some others in the modern town, as seen from the south. To the left of the picture, or on the west, is the immense structure commonly called the Temple of the Sun, with its courts. More in the foreground is another smaller, but more entire temple; and

at a considerable distance west from that, and still further to the south, is a third temple, of a circular form, distinguishable by a modern spire, which has been erected over it, to convert it into a Greek church. A Doric column, a Turkish mosque, and some other modern erections, are seen interspersed. Surrounding the whole is the city wall, ten or twelve feet high, and defended at intervals by square towers.

The entry to the great Temple of the Sun is from the east, through a noble portico of twelve circular columns; and the first apartment in which the visiter finds himself is a magnificent hexagonal (six-sided) hall, 180 feet in diameter, exhibiting on all sides the remains of an architectural beauty and magnificence of the richest character, in the columns and other ornaments of a circle of chambers which run around it. Beyond this is a still larger court of nearly a square form, being 374 feet in one direction by 368 in another, and at the farther extremity of that is the far-stretching pillared structure forming the proper temple. As may be observed from the view, nine of the lofty columns which had composed this part of the edifice are still to be seen standing together. There had been originally fifty-six in all, namely, ten at each end, and eighteen others along each of the sides. The entire length of the space which they include is 285 feet, and its breadth 157. The height, including the plinth, is 87 feet. Nothing grander can be conceived than the aspect presented by this immense and richly ornamented temple, when seen in its full extent. No part of the structure is perhaps more wonderful than the terrace or subbaseament by which the whole is surrounded, the stones composing which are in general 80 feet in length by 10 in breadth, and 13 in height. At the west end are three of the enormous length of 63 or 64 feet each. A freestone quarry still remains open, not far from the city wall, from which these colossal blocks

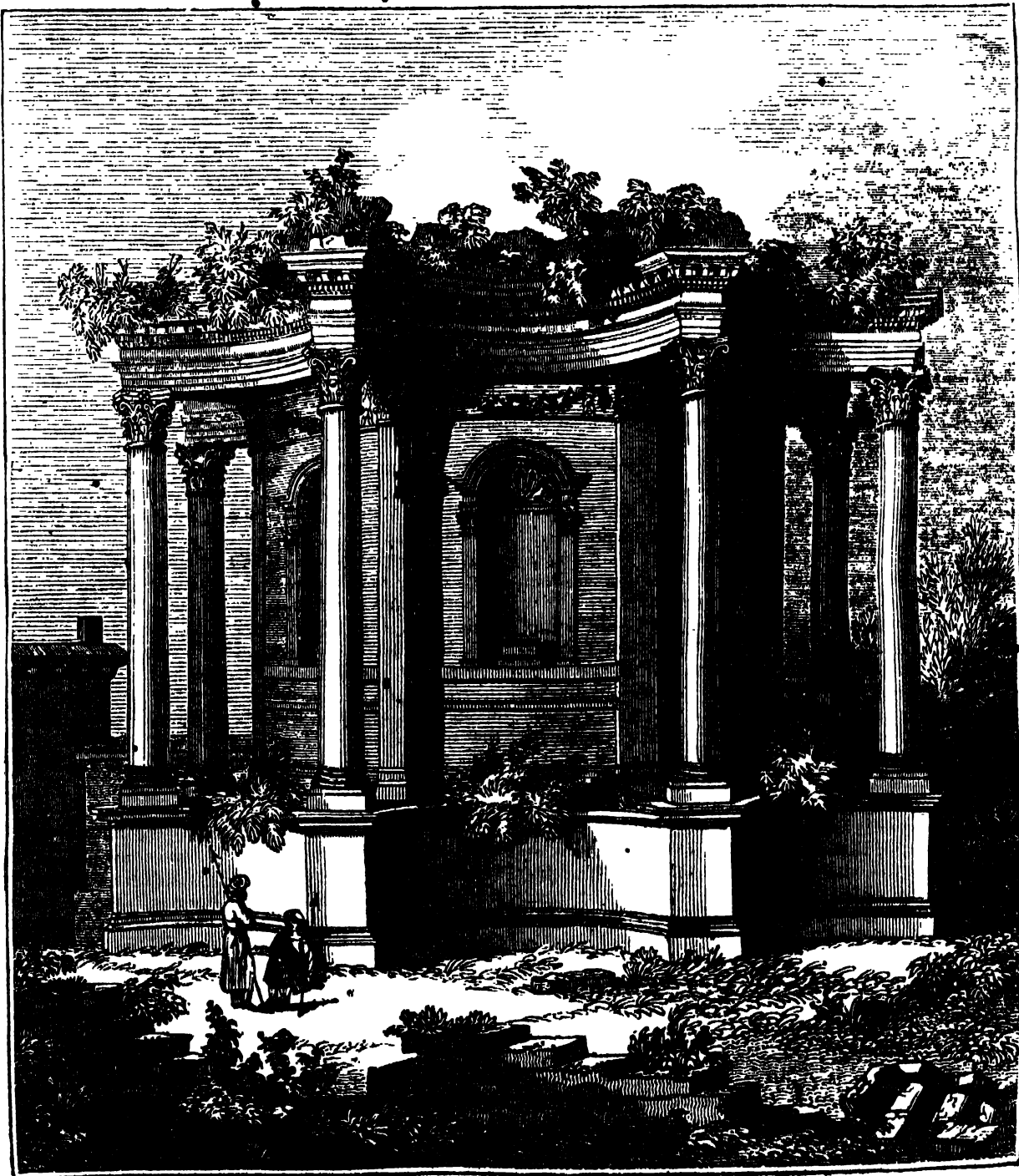
appear to have been hewn, and where many of similar dimensions are to be seen cut from the rock, and left ready to be removed. From this and other circumstances, Mr. Wood concludes that the soubassement of the temple was never finished. One of the stones lying in the quarry, which is not quite detached, is even larger than any of those in the temple, measuring 70 feet in length by 14 in breadth, and 14½ in height. Its weight would be about 1135 tons.

The other temple, to the south of this, is, as we have mentioned, of smaller dimensions, but is still a large building, being 222 feet in length by 114½ in breadth. Its columns have been originally 34 in all, namely, 8 in front, and 13 along each of the sides. Their height, including the plinth, is 76½ feet; but the ground on which this temple stands is lower than the site of the other. The ornaments here are all likewise of the richest description. The Turks have built two great square towers on the ruins of the portico of this temple;

but in other respects it is considerably less dilapidated than the former. In Wood's time, nearly all the pillars composing the peristyle, together with their entablature, were entire.

Our second woodcut is a view of the circular temple, a small building of exquisite beauty. The building itself, exclusive of the pillars by which it is surrounded, is only 32 feet in diameter; and the height is divided into two parts, in the lower of which the architecture is Ionic, and in the higher, Corinthian. The lower has been at one time converted into a Greek church. The grace and lightness of the exterior of this edifice make it a perfect gem of art.

The buildings of Balbec are for the most part of the Corinthian order. John of Antioch states that the great temple was built by the Roman emperor, Antoninus Pius, in the second century; and other circumstances would also lead to the conclusion that it is of this age.



[Circular Temple of Balbec.]

PROFESSIONS AND TRADES OF THE METROPOLIS.

In the inquiries upon which the Population Returns for 1831 were founded, it was attempted to obtain an account of the multifarious divisions of the British people, according to their occupations. This portion of the Returns has not yet been published. Of late years some very full Directories have appeared; amongst others, 'Pigott's Commercial Directory' for the whole country, and 'Robson's Commercial Directory and Street Guide' for the metropolis. It appeared to us that some approach to an accurate estimate of the proportions between one employment and another might be formed by analysing the lists in the latter work for 1834, of the professional persons, merchants, manufacturers, and shopkeepers of this great city; and from this source we have obtained, by actual and careful counting, the results exhibited in the following table. As the lists were not at all framed for the purpose to which we have applied them, the results exhibited in this table have not been obtained without much expense of time and labour. It should be mentioned that the list of tradesmen in the Directory does not profess to give all the establishments; small shops in very obscure streets are no doubt often omitted. It was sometimes desirable to bring under one head, details which, in the lists, are widely separated. Thus 'Porkmen' have been joined to 'Butchers' and 'Meat Salesmen'; and 'Irish, Scotch, and Manchester warehouses' to 'Linen-drappers.' The figures prefixed to the several items of the table refer to some observations, which it seemed desirable to subjoin.

TABLE OF PROFESSIONS AND TRADES.

Accountants	107
1. Agents	498
2. Architects and Surveyors	205
3. Artists	212
4. Auctioneers and Appraisers	460
Bakers	1887
Barristers	856
Bookbinders	246
5. Booksellers	508
Boot and Shoe-makers	1490
Brewers (86 Retail, 22 Porter)	220
6. Brokers	1399
7. Builders, Bricklayers, &c.	1008
Butchers and Meat Salesmen	1479
Cabinet Makers	552
Carpenters	1109
Carvers and Gilders	281
8. Cheesemongers	940
Chemists and Druggists	615
China, Glass, and Staffordshire Dealers	320
9. Coach Makers	264
Coal Merchants (602), Dealers (140), and Factors (11)	753
Coopers	232
Curiosity (12) and Picture (40) Dealers	91
Cutlors (163) and Hardwaremen (60)	223
Dairymen	218
Dentists	120
Distillers	57
Dyers	297
10. Engineers	111
11. Engravers	431
Factors	359
Fishmongers (235) and Factors (30)	265
Florists (32), and Nursery and Seedsman	91
Founders (Brass 138, Iron 53, Type 12, Stereotype 6)	211
Goldsmiths	197
12. Grocers	1933

Gun and Pistol Makers	83
Haberdashers	358
13. Hair-dressers and Perfumers	391
Hatters	417
Hosiery	249
Ironmongers (153 Wholesale)	478
14. Jewellers	347
15. Licensed Victuallers	3638
Linen Drapers	695
Livery Stable Keepers and Horse Dealers	309
Mathematical, Optical (68), and Philosophical Instrument Makers	143
16. Merchants	3648
Milliners and Dress Makers	538
Musical Sellers, (Publishers 39)	89
Musical Instrument (109 Piano-forte, 25 Organ) Makers	195
News-vendors	347
17. Oil-men	1045
Paper-Stainers and Hangers	146
Pastry Cooks and Confectioners	282
Patentees (exclusive of Medicines)	95
Pawnbrokers	321
Physicians	205
18. Plumbers, Painters, and Glaziers	1041
Poulterers	163
19. Printers	481
Saddlers	223
20. Sculptors	40
Ship (26), and Barge and Boat Builders	60
21. Silk Mercers, &c.	280
Silver-smiths	176
Smiths	238
22. Solicitors and Attorneys	1931
Stay and Corset Makers	194
Straw and Chip Hat Makers	283
23. Stationers	582
Surgeons	1306
Tailors	1965
Tobacconists	662
Undertakers	405
24. Watch and Clock Makers	670
Wax and Tallow Chandlers	120
Woollen Drapers (219), Manufacturers (14), and Warehousemen (66)	299

1. 191 are General and Commercial, 72 Estate and House, 30 East India, and 12 Foreign Agents.

2. 76 are Surveyors only.

3. 84 of this number are of considerable distinction, viz., 23 as Historical and Character Painters; 20 Portrait; 21 Landscape; 13 Miniature; 4 as Painters of Animals; and 3 in Enamel.

4. 87 are Appraisers only; 14 are also Upholsterers, and 37 Surveyors.

5. This enumeration does not include 824 retail Booksellers, who are Stationers also. 97 are Publishers, of whom 15 supply the town and country trade generally; 6 confine themselves chiefly to their own publications, and the remainder are retail Booksellers and Publishers. 56 Booksellers sell chiefly modern publications, and 72 deal in second-hand books; 27 have Circulating Libraries, and 12 Reading Rooms. The Foreign Booksellers are 21; Religious, 16; Law, 15; Juvenile, 7; Medical, 6; Scientific and Agricultural, 2; Theatrical, 3; Military, 2.

6. 322 are Stock; 87, Bill; 97, Insurance; 172, Ship and Insurance; and 422, Furniture, Brokers.

7. 510 are Builders, of whom 150 are also Carpenters, and 76 Bricklayers. There are 376 other Bricklayers, of whom 152 are also Plasterers, and 5 Slaters. 55 who are exclusively Plasterers, and 27 Slaters, are also comprehended.

8. 23 are Wholesale. There are, besides, 398 Grocers who are also Cheesemongers.

9. There are besides 108 manufacturers of *parts of coaches*.

10. Of this number 19 are Civil Engineers: 9 are also Machinists, and 14 Mill-wrights.

11. 6 are Historical; 15, Wood; and 53, Seal Engravers. 156 are also Printers, and 24 Enamellers.

12. 59 are Wholesale; 398 are also Cheesemongers, and 1323 Tea-dealers: but there are besides 84 wholesale Tea-dealers, 83 dealers in Tea and Coffee only, and 22 dealers in Coffee only, who are not comprehended in the amount.

13. Most of the Goldsmiths, 39 Silversmiths, and 12 Watchmakers, are also Jewellers. 8 wholesale, and 84 working, Jewellers are included in the enumeration.

14. It is curious to remark the uniformity of London *signs*. There are, for instance, King's Arms, 90; King's Heads, 73; Red Lions, 74; Crowns, 70; Grapes, 62; Coach and Horses, 60; Ships, 49; White Horses, 47; &c.

15. 3 are Manufacturers; 16, Wholesale Dealers; 79, Manchester, Scotch, or Irish Warehouses; 78 are also Haberdashers.

16. 1200 are General Merchants; 4, Oporto; 36, Russia; 7, Turkey; 3, East India; 35, West India; 602, Coal; 459, Wine; 404, Wine and Spirits; 230, Timber.

17. 515 are also Colourmen; 86, Grocers; 62, Italian Warehousemen; and 35, Tallow Chandlers.

18. 157 are Painters and Glaziers only. The amount is exclusive of 97 Painters and Decorators, 51 Painters and Grainers, 10 Herald, and 6 Sign Painters.

19. 50 are Copper-plate; 42, Lithographic; 3, Music; and 3, Silk Printers. 38 are Stationers also.

20. About 18 of the number are much distinguished. There are also 5 makers of figures in Plaster of Paris, and 2 in Wax.

21. 39 are Manufacturers: 60 are also Linendrapers, and 31, Haberdashers.

22. There are besides 82 Proctors, 38 Notaries Public, and 110 Conveyancers.

23. 324 are also Booksellers, and 29 Bookbinders. 14 are Law, and 35 Fancy Stationers.

24. 13 are Chronometer-makers, and 25 are exclusively Clock-makers. There are besides 159 who manufacture the different parts of watches, and are not included.

CASPAR HAUSER.

MANY writers on the intellectual nature of man have attempted to supply a chapter for which human experience afforded no materials, by conjecturing what would be the condition of a being secluded, from infancy to youth, from all knowledge of the external world, and from all intercourse with his species, and, therefore, destitute of the common experience, the appetites, and the acquirements, which result from the circumstances in which a human being is usually placed. The probable character of his feelings and perceptions, on viewing the glories of nature which he had never witnessed, and his sensations amidst the business and forms of life of which he had no previous notion, afforded matter for very interesting speculation. The state of man, excluded from social intercourse and education, is perhaps partially exhibited in such histories as those of Peter the Wild Boy; but the subject, as a whole, is now redeemed from speculation by the history of Caspar Hauser. This history is not only of surpassing interest in itself, but, in the point of view we have stated, is of such importance, that the information it affords must always hereafter occupy that place in the history of man which conjecture has hitherto supplied.

An exceeding curious account of this remarkable being has been translated from the German of Anselm von Feuerbach, and to this we are indebted for the information which we purpose to lay before our readers, referring those who desire further information to the work itself for many interesting details which our limits will not include.

On Whit Monday, the 26th May, 1828, a citizen of Nuremberg, in Bavaria, was proceeding from his house to take a walk, when, happening to look around him, he perceived at a little distance a young man in the dress of a peasant, who was standing in a very singular posture, and, like an intoxicated person, was endeavouring to move forward, without being able either to stand upright or to govern the movement of his legs. On the approach of the citizen the stranger held out to him a letter directed to a military officer living in Nuremberg. As the house of this person lay in the direction of the citizen's walk, he took the youth thither with him. When the servant opened the door, the stranger advanced with the letter in his hand, with the following words:—"Ae sechtene möcht ih wahn, wie mei Votta wahn is." The various questions of the servant,—as, what he wanted? who he was? whence he came?—he appeared not to understand, and answered only by a repetition of the same words. He seemed so much fatigued that he could scarcely be said to walk, but only to stagger; and he pointed to his feet with tears, and a countenance expressive of much pain. As he appeared to be also suffering from hunger and thirst, a small piece of meat was handed to him; but scarcely had the first morsel touched his lips when he shuddered, the muscles of his face were seized with convulsive spasms, and he spat it out with great abhorrence. He manifested the same aversion after he had tasted a few drops of a glass of beer which was brought to him. But he swallowed with greediness and satisfaction a bit of bread and a glass of pure water. In the meantime all attempts to gain any information concerning his person or his arrival were entirely fruitless. He seemed to hear without understanding, to see without perceiving, and to move his feet without knowing how to use them for the purpose of walking. His language consisted mostly of tears, moans, and unintelligible sounds, mingled with the words which he frequently repeated,—"*Renta wahn, wie mei Votta wahn is*." He was hence soon regarded as a kind of savage; and, in expectation of the captain's return, was conducted to the stable, where he immediately stretched himself on the straw, and fell into a profound sleep. When the captain came home, several hours after, the boy was with immense difficulty awakened. He then regarded the bright colours of the officer's uniform with childish satisfaction, and began to repeat his "*Renta*," &c. to which, and his few other articulate expressions, he attached, as was afterwards discovered, no particular meaning. They were only sounds which had been taught him like a parrot, and which he uttered as the common expression of all his ideas, sensations, and desires.

The letter addressed to the captain afforded no distinct information concerning this singular being. It stated that the writer was a poor day-labourer with a family of ten children. The bearer had been left in his house the 7th October, 1812, and he had never since been suffered to leave it. A Christian education had been given to him, and he had been taught to read and write; and as he wished to become a trooper, and the writer found it difficult to maintain him longer, he had brought him to Nuremberg and consigned him to the captain's protection. This letter, manifestly designed to mislead, was written in German, and concluded with

* This jargon seems to imply, "I will be a rider (a trooper) as my father was."

this heartless expression,—“If you do not keep him, you may get rid of him, or let him be scrambled for.” In a Latin postscript, evidently by the same hand, though the writer professes to be a poor girl, it is stated that the lad was born April 30, 1812; that he had been baptized; that the application was for his education until he became seventeen years old, and that he should then be sent to the 6th *Chevaux-léger* regiment, to which his father, then dead, had belonged.

Under all the circumstances, the captain thought it best to consign the stranger, and to leave the solution of the riddle, to the city police. On his arrival at the guard-house, the usual official questions were put to him, to which and all other inquiries he gave no other reply than with his usual unmeaning “Reuta,” &c. He exhibited neither fear, astonishment, nor confusion; but rather showed an almost brutish dulness, which either leaves external objects entirely unnoticed, or stares at them without thought. But he was continually pointing, with tears and whimpering, to his feet, which, with his awkward and childish demeanour, soon excited the compassion of all who were present; for, having the appearance of a young man, his whole conduct was that of a child scarcely two or three years old. The police were divided in opinion whether to consider him as an idiot or as a kind of savage; and one or two expressed a doubt whether under this appearance some cunning deceiver might not be concealed. Some one thought of trying whether he could write, and placed materials before him, with an intimation that he should do so. This appeared to give him pleasure; he took the pen, by no means awkwardly, between his fingers, and wrote in legible characters the name “Kasper Hauser.” This circumstance strengthened the impression of his being an impostor, and he was, for the present, consigned to a tower used for the confinement of rogues and vagabonds, in the short walk to which he sank down, groaning at almost every step.

The structure of Caspar Hauser's body, which was stout and broad-shouldered, showed perfect symmetry, without any visible defect. His face was, on his first appearance at Nuremberg, very vulgar; when in a state of tranquillity, it was almost without expression; and its lower features being somewhat prominent, gave him a brutish appearance. But the formation of his face altered in a few months almost entirely; his countenance gained expression and animation, the lower part of his face became gradually less prominent, and his earlier physiognomy could scarcely be longer recognised. His feet, which have no marks of having been ever before confined by a shoe, were beautifully formed, and the soles were as soft as the palms of his hands. His gait was, properly speaking, not a walk, but rather a waddling, tottering, groping of the way—a painful medium between the motion of falling, and the endeavour to stand upright. The smallest impediment in his way caused him often, in his chamber, to fall flat on the floor; and for a long time after his arrival he could not go up or down stairs without assistance. He scarcely knew at all how to use his hands and fingers. Where others applied but a few fingers, he used his whole hand in the most awkward manner imaginable.

In a very short time Caspar Hauser ceased to be regarded either as an idiot or an impostor; and the mildness, good-nature, and obedience which he exhibited, precluded the idea that he had grown up among the beasts of the forests. Yet he was so utterly destitute of words and conceptions, so unacquainted with the common objects and daily occurrences of nature; and he showed such an indifference and abhorrence to all the usual customs, conveniences, and necessities of life; and evinced such extraordinary peculiarities in his mental, moral, and physical existence, that it only remained to conjecture that he had, been kept in a state

of utter seclusion and imprisonment during the former portion of his existence; and now appeared a monstrous being, only beginning to live in the middle of his life, and who must always remain a man without childhood or boyhood.

Caspar then became an object of great curiosity and interest, and was visited by hundreds of persons. During the night he lay upon his straw bed; and in the day he sat upon the floor with his legs stretched out before him. He could be persuaded to take no other food than bread and water. Even the smell of most of the common articles of food was sufficient to make him shudder, or still more disagreeably to affect him; and the least drop of wine or coffee, mixed clandestinely with his water, occasioned him cold sweats, or caused him to be seized with vomiting or violent head-ache. When he saw for the first time a lighted candle placed before him, he was delighted with the shining flame, and unsuspectingly put his fingers into it; but he quickly flew them back, crying out and weeping. Feigned cuts and thrusts were made at him with a naked sabre, in order to try what might be their effect upon him; but he remained immovable without even winking, or without appearing in the least to suspect that any harm could thus be done to him. When a looking-glass was once held before him, he caught at his own reflected image, and then looked behind to find the person whom he supposed to be concealed there. Like a little child, he endeavoured to lay hold of every glittering object that he saw; and he cried when he could not reach it or was forbidden to touch it. He was in possession of only two words for the purpose of designating living creatures. Whatever appeared to him in a human form he called, without any distinction of sex or age, “hua;” and to every animal that he met with, whether quadruped or biped, dog, cat, goose or fowl, he gave the name of “ross,” (horse). This word, indeed, appeared to fill by far the greatest space in his vocabulary, which contained scarcely half a dozen words. He often repeated the word with tears, and in a plaintive, beseeching tone of voice; and whenever any trifle, a riband, a coin, or a little picture, was given to him, he cried “Ross! ross!” and expressed by his looks and motions a desire to hang all these pretty things upon a horse. This suggested to a police soldier the idea of giving him a wooden horse for a plaything. The possession of this toy seemed to effect a great alteration in Caspar. He lost his insensibility, his indifference, and his dejection, and conducted himself as if he had found an old and long-desired friend. From that time he had ample employment in decorating, caressing, feeding, and dragging his horse to and fro by his side, without changing his usual position on the floor. He never ate his bread without first holding every morsel of it to the mouth of some one of his horses,—for more were given him,—nor did he ever drink water without first dipping their mouths in it, which he afterwards carefully wiped off. When the keeper endeavoured to make him understand that his wooden horses could not eat, he thought he had sufficiently refuted him by pointing to the crumbs that stuck in their mouths. From this and many other instances it manifestly appeared that ideas of things animate or inanimate, organic or unorganized, or of what is produced by nature or formed by art, were all strangely mingled together in the mind of this poor victim of an extraordinary cruelty.

[To be continued in the next Number.]

In some of the copies of No. 117 (Supplement), the paragraph in p. 35, beginning “Humboldt informs us,” was transposed. It should be inserted after the first two lines of the second column of p. 31.

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THE CHLAMYPHORUS TRUNCATUS.



[Chlamyphorus Truncatus.]

THE *Chlamyphorus Truncatus*, or *Pechichiago*, is a little animal belonging to the order *edentata*—an order which includes mammalia destitute of incisor teeth, and sometimes of teeth altogether. The first detailed account we have of the *chlamyphorus* is given by Dr. Harlan, professor of comparative anatomy to the Philadelphia Museum; who, however, had only the opportunity of examining an imperfect specimen.

The animal is a native of Chili, where, like a mole, it burrows in the rich soil of the valleys, living for the most part underground, in quiet seclusion. Concealed in its subterranean retreats, it is regarded by the natives as a curiosity; and, indeed, independent of its being hidden from observation, as it seldom visits the surface, at least during the light of day, it appears to be extremely rare. Its food, so far as we are assured by its dentition and the imperfect accounts received respecting its habits, is insectivorous, and doubtless consists of such as like itself inhabiting the soil beneath the surface, become the objects of its pursuit without calling it from its obscurity. Night is most probably the season of its activity, and of its unfrequent visits to the "upper world."

Few animals with which we are acquainted are better qualified for a subterranean mode of life, or better furnished with the means of "progressing" through the soil, or forming galleries and chambers. The top of the head, and the whole of the upper surface of the body, are covered with a thin shell of a consistence between horn and leather, divided, by intersecting fur-

rows, into a series of bands or strips, each strip being itself made up of fifteen or twenty plates of a square form, except on the head, which is covered with a single plate composed of a mosaic-work of rounded and irregular portions. This horny covering or shield is not fixed by the whole of its inferior surface to the integuments beneath, as is the case with the armadillo, but merely rests on the back, free throughout, "excepting along the spine of the back and top of the head; being attached to the back, immediately above the spine, by a loose cuticular production, and by two remarkable bony processes on the top of the *os frontis* (bone of forehead), by means of two large plates which are nearly incorporated with the bone beneath; but for this attachment, and the tail being firmly curved beneath the belly, the covering would be very easily detached." The extremity of the tail is formed like a paddle. "The whole surface of the body is covered with fine silk-like hair, (of a delicate straw colour,) longer and finer than that of the mole, but not so thick. The anterior of the chest is large, full, and strong; the anterior extremities short, clumsy, and powerful." The hand, which is amazingly thick and compact, is furnished with five powerful but compressed nails, which, arranged together in their natural situation, constitute one of the most efficient scrapers or shovels which can be possibly imagined; and expressly adapted for progression under ground, but in an equal ratio ill-fitted for celerity on the surface. The hind legs are comparatively weak, the feet being long and

somewhat resembling the human; the toes are furnished with small flattened nails. Sight is but a second-rate sense, as it regards its importance in the economy of an animal living in darkness beneath the ground;—the organs of vision, therefore, are almost as little developed as in the mole, being very minute, and buried in the long silky fur; by which the circular orifices of the ears are also equally concealed. The head is almost conical in its figure, going off from a broad base to a pointed snout, furnished with an enlarged cartilage, as in the hog, and doubtless for the same purpose, of grubbing and burrowing for food. In accordance with the details of external configuration the skeleton is equally indicative of the creature's habits. The skull is firm, and prevented from being pressed upon by the shield, which rests on two solid projections, as seen in the annexed sketch. The bones of the fore limbs are thick, short, and angular; the scapulae broad and strong; the ribs thick, and capable of resisting great pressure. The hip-bones are of singular construction, and admirably formed for protecting the internal organs from injury. Such is an outline of the structure and habits of the *Chlamyphorus*, an animal which, though bearing in some points a close analogy both to the mole and the armadillo, yet possesses characters so exclusively its own, as to render it one of the most interesting and remarkable of modern discoveries in zoology. Of this rare animal two specimens alone exist, one in the Museum of Philadelphia, the other, whose skeleton is perfect, in the Museum of the Zoological Society of London.



[Skull of *Chlamyphorus*, two-thirds of the natural size.]

CASPAR HAUSER.—No. II.

[Continued from No. 118.]

As soon as it was discovered that Caspar Hauser was no other than a grown infant, who had yet to learn to speak, act, and observe, he was removed to that part of the prison tower in which the keeper and his family resided. In this situation his education began, and his first tutor was the gaoler's son, a little boy who was eleven years old. He became greatly attached to Caspar; and the natural pride of superior knowledge made it a delightful task to him to teach a robust youth, so much his senior, how to speak. The burgo-master of Nuremburg and Professor Daumer soon interested themselves in Caspar's education. To the house of the burgo-master he was taken almost daily for the purpose of instruction, and he was finally consigned altogether to the care of the professor. This change was chiefly effected by the representations of the writer of the work from which our account is taken, who visited Caspar about a month after he was first found, and who became convinced that he would either die of a nervous fever or be visited with some attack of insanity or idiocy if some change were not made in his situation: for it was manifest that the unaccustomed impressions of light and the free air,—the strange and often painful mingling of various images which continually flowed in upon his senses,—the effort to which his mind was incessantly stimulated by the thirst for knowledge, labouring, as it were, to fasten upon, devour, and

absorb into itself whatsoever was new to him (and all things were new): all this was more than his feeble body, and delicate, yet constantly excited, nerves could bear. Such was the irritability of his frame that whatever forcibly stimulated his curiosity, attracted his attention, or which he made a strong effort to comprehend, affected him with convulsive spasms, by which his face was distorted, and his whole body affected, particularly his arm and hand.

When the writer saw him, his playthings had ceased to occupy much of his attention during the day. It was merely his evening occupation to pack them away, and his morning employment to arrange all his toys in a certain order upon a bench, and to stick to the walls with his saliva, which was as tough as glue, sheets of coloured pictures, as high as he could reach. Then and afterwards, a most surprising and inexplicable property of this young man was his love of order and cleanliness, which he even carried to the extreme of pedantry. Of the many hundreds of trifles of which his little household consisted, each had its appropriate place, was properly packed, carefully folded, and systematically arranged. Uncleanliness, or what he considered such, whether in himself or others, was an abomination to him.

When visited by strangers, he showed nothing like shyness or timidity: he met them with confidence, and seemed to rejoice in their visits. Those whose dresses exhibited the most vivid colours or glittering ornaments obtained his first attention. When a person was introduced to him by his name and title, Caspar was accustomed to go up close to him; regarded him with a sharp, staring look; noticed every particular feature of his face successively with a penetrating, rapid glance; and at the last, collected all the different parts of the countenance, which at first he had gathered separately, and piece by piece, into one whole. He concluded this ceremony with repeating the name of the person exactly as it had been mentioned to him; and now he knew that person, and as experience afterwards proved, he knew him for ever.

It is highly interesting to trace the phenomena which were exhibited when the physical senses of this young man began gradually to awake from their long torpor to the perception of external objects. It was not before the lapse of several days that he began to notice the striking of the steeple clock, and the ringing of the bells. This threw him into the greatest astonishment, which at first was expressed only by his listening looks, and by the spasmodic motions of his countenance, succeeded by a stare of benumbed meditation. Some weeks afterwards a nuptial procession passed under his windows with a band of music. He suddenly stood listening, motionless as a statue; his ears and eyes seemed continually to follow the movements of the sounds as they receded more and more; and they had long ceased to be audible to others while he still continued immovably fixed in a listening posture, as if unwilling to lose the least vibrations of these notes. He was once, at a military parade, placed very near to the great regimental drum; and he was so powerfully affected by its first sounds as to be immediately thrown into convulsions, which rendered his instantaneous removal necessary.

Caspar was remarkable for the extreme susceptibility and acuteness of his physical senses until after the period when he had been brought to eat meat. The following observations appear to refer chiefly to the early period of his residence with Professor Daumer:—His hearing was exceedingly quick. When taking a walk in the fields, he once heard, at a comparatively great distance, the footsteps of several persons, and he could distinguish these persons from each other by their walk. Perceiving, on one occasion, that a blind

man evinced greater powers of hearing than himself, he observed, that his hearing had formerly been more acute; but that, since he began to eat meat, he had been unable to distinguish sounds with so much nicety as the blind man.

Nothing made his new mode of life more unpleasant to him than the sense of smelling. What to us is entirely scentless was not so to him. The most delicate and delightful odours of flowers were felt by him as insupportable stench, which painfully affected his nerves. Excepting the smell of bread, and of certain condiments used in that to which he had been accustomed in his prison, all scents were more or less disagreeable to him. When he was once asked which of all other smells was most agreeable to him? he answered, "None at all." His walks and rides were thus rendered very unpleasant by leading him near to flower-gardens, tobacco-fields, and nut-trees. He could distinguish apple, pear, and plum trees from each other at a considerable distance by the smell of their leaves. The different colouring materials used in the painting of walls and furniture, and in the dyeing of cloths,—the pigments with which he coloured his pictures,—the ink or pencil with which he wrote,—all things about him,—produced effects upon his sense of smell which were disagreeable or painful to him. The opening of a bottle of Champagne was sure to drive him from the table, or to make him sick. What we call unpleasant smells were perceived by him with much less aversion than many of our perfumes. The smell of fresh meat was to him the most horrible of all smells.

As to his sight, there existed, in respect to him, no twilight, no night, no darkness. This was first noticed by remarking that, at night, he stepped every where with the greatest confidence, and that, in dark places, he always refused a light when it was offered him. In twilight he even saw much better than in broad daylight. Thus, after sunset, he once read the number of a house at the distance of a hundred and eighty paces, which, in daylight, he would not have been able to distinguish so far off. Towards the close of twilight, he once pointed out to his instructor a gnat on a very distant spider's web. It has been proved, by experiments carefully made, that, in a perfectly dark night, he could distinguish different dark colours, such as blue and green, from each other. M. von Feuerbach relates that, recollecting the well-known account given by Cheselden of a young man who had become blind but a few days after his birth, and was restored to sight by a successful operation, he felt desirous of instituting a comparison between his perceptions and those of Caspar. In one of his visits to the tower he accordingly directed him to look out of the window, which afforded the prospect of a beautiful landscape in all the glory of summer. He obeyed; but he immediately drew back with visible horror, exclaiming, "Ugly! ugly!" and then pointing to the white wall of his chamber, he said, "There are not ugly." To the question, Why it was ugly? no other reply was made but "Ugly! ugly!" M. von Feuerbach, however, preserved this incident in his memory; and, on a future occasion, when Caspar's mind had much advanced in cultivation, he took occasion to recall the circumstance to his recollection. He replied, "Indeed, what I then saw was very ugly; for when I looked at the window, it always appeared to me as if a window-shutter had been placed close before my eyes, upon which a wall-painter had spattered the contents of his different brushes, filled with white, blue, green, yellow, and red paint, all mingled together. Single things, as I now see things, I could not at that time recognize and distinguish from each other. This was shocking to look at; and, besides, it made me feel anxious and uneasy,

because it appeared to me as if my window had been closed up with this party-coloured shutter, in order to prevent me from looking out into the open air. That what I then saw were fields, hills, and houses; that many things which at that time appeared to me much larger were, in fact, much smaller, while many other things that appeared smaller were, in reality, larger than other things,—are facts of which I was afterwards convinced by the experience gained during my walks. At length I no longer saw anything of the shutter." To other questions, he replied, that in the beginning he could not distinguish between what was really round or triangular, and what was only painted as round or triangular. The men and horses represented on sheets of pictures appeared to him precisely as the men and horses that were carved on wood;—but he said that, in the packing and unpacking of his things, he had soon felt a difference; and that afterwards it had seldom happened to him to mistake the one for the other.

Of his astonishing memory, which was as quick as it was tenacious, Caspar gave the most striking proofs, but its strength declined afterwards precisely in the proportion that it was enriched, and as the labour of his understanding was increased.

"His obedience to all those persons who had acquired paternal authority over him was unconditional and boundless. That the burgomaster or professor had said so, was to him a reason for doing or omitting to do anything, which was final, and totally exclusive of all further questions and considerations. Yet, in his opinion, this submission to the authority of others referred only to what he was to do or not to do, and it had no connexion whatever with his knowing, believing, and judging. Before he could acknowledge anything to be certain and true, it was necessary that he should be convinced; and, indeed, that he should be convinced, either by the intuition of his senses, or by some reasoning so adapted to his powers of comprehension, and to the scanty acquisitions of his almost vacant mind, as to appear to him to be striking. Whenever it was impossible to reach his understanding by any of these ways, he did not, indeed, contradict the assertion made, but he would leave the matter undecided, until, as he used to say, he had learned more. When he was told, among other things, of the impending winter, and that the roofs of the houses and the streets of the city would then be all white,—as white as the walls of his chamber,—he said that this would be very pretty, but plainly insinuated that he should not believe it until he had seen it. The next winter, when the first snow fell, he expressed great joy that the streets, the roofs, and the trees were now so well painted; and he went quickly down into the yard to fetch some of the white paint; but he soon ran to his preceptor with all his fingers stretched out, crying and bawling out 'that the white paint had bit his hand.'

[To be concluded in No. 120.]

A WISH.

Minx be a cot beside the hill,

A bee-hive's hum shall soothe my car;

A willow brook that turns a mill,

With many a fall shall linger near.

The swallow, oft, beneath my thatch,

Shall twitter from her clay-built nest,

Oft shall the pilgrim lift the latch,

And share my meal, a welcome guest.

Around my ivy'd porch shall spring

Each fragrant flower that drinks the dew;

And Lucy at her wheel shall sing,

In russet gown and apron blue.

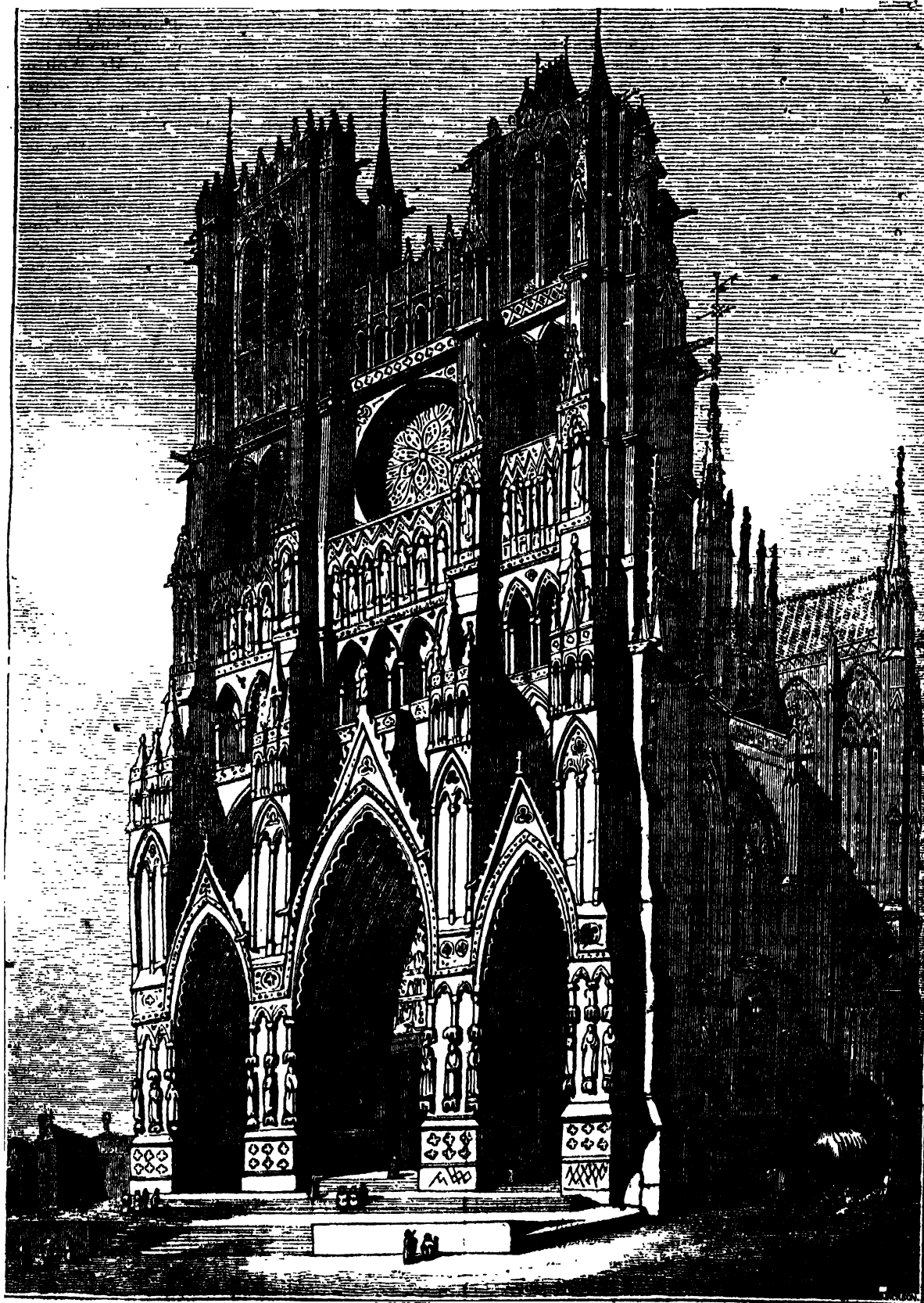
The village church among the trees,

Where first our marriage vows were given;

With merry peels shall swell the breeze,

And point with taper spire to heaven.

POETRY.



[West Front of the Cathedral of Amiens.]

THE Cathedral of Amiens has always been accounted one of the chief glories of Gothic architecture. It was erected at the time when, in France at least, whatever might be the case in England, that style had reached its highest perfection, namely, the early part of the thirteenth century. To this period are to be referred all the other greatest works of the same kind in that kingdom: among others, the cathedrals of Paris, of

Rouen, of Rheims, and of Lyons, the Sainte Chapelle at Paris, the church of St. Nicaise at Rheims, and that of Notre Dame at Nantes. All these famous structures were completed, we believe, a considerable time before the close of the thirteenth century, and they were most of them begun a few years before or after its commencement.

From the extraordinary richness and beauty dis-

played in these buildings, nothing of a character similar to which, it is contended, was seen in England till nearly a hundred years later,—a very powerful argument has been deduced in refutation of the notion of some writers, that what is called Gothic architecture is of English origin. So far, it is said, is this from being the case that, if the comparative state of the art in the two countries at the same date is to be taken as evidence of which borrowed it from the other, it is impossible not to admit that France must have been the fore-runner and teacher of England. It would appear that the only way in which this argument can be met, is by questioning the fact upon which it is founded; and accordingly it has been asserted, that Salisbury and other English cathedrals, built in the thirteenth century, exhibit as advanced a style as those of the same age in France. After all, neither of the theories which make the one of these two countries to have borrowed its Gothic architecture from the other is altogether free from difficulties; and probably the truer supposition is, that both derived the art from some third quarter, or, it is even possible, from two perfectly distinct quarters, and that it was then carried forward independently in each.

One of the most able expositions and defences of the opinion, that the English Gothic is of French origin, is contained in a work entitled, 'An Historical Survey of the Ecclesiastical Antiquities of France, by the Rev. G. D. Whittington,' published in 1809, after the death of the author, under the care of the Earl of Aberdeen. The views maintained in this work are supported by a reference, among other edifices, to the cathedral of Amiens, and by an elaborate comparison of it with that of Salisbury, which was begun in the same year, and also completed nearly within the same space.

The present is the third cathedral which is recorded to have been erected at Amiens, the two former having been successively destroyed by fire (the common catastrophe of large buildings in those days) in 1019 and 1218. The zeal of Bishop Evrard, however, who presided over the see when the latter of these two calamities occurred, did not permit him to lose much time in making preparation for the erection of a new and more splendid church; and, after money had been collected by every available method for the pious work, the building was begun in 1220. It was zealously carried on by Evrard and his successors, till, having been finished in all its material parts, it was consecrated in 1269, in the time of Bishop Berthold d'Abbeville, the fifth from its founder. The ornamental part of the work, however, it would appear, continued to be carried on for nearly twenty years after this date; and the two great towers over the west front are stated not to have been erected till the following century. There are some verses, in old French, inscribed on the pavement of the nave, which state that the main part of the building was the work of three successive architects: 'Maistre Robert de Lusarche, Maistre Thomas de Cormont, and Maistre Regnault.'

The structure is in the customary form of a cross, composed of a nave and choir in the one direction and a transept in the other. Both the nave and the transept are furnished with aisles, and there are double aisles on each side of the choir. The following are the principal dimensions, as given by Mr. Whittington in French feet (each of which contains about 13 English inches);—length from east to west, 415 feet; length of the transept from north to south, 182 feet; breadth of the nave with its aisles, 78 feet 9 inches; breadth of the transept, 42 feet 9 inches.

The external appearance of this magnificent building presents a striking combination and harmony of boldness and lightness. The windows are ranged in two tiers, and are of so great height and breadth, being divided from each other only by narrow buttresses,

that, to adopt Mr. Whittington's expression, no wall, properly speaking, is visible anywhere; the pile is all window. The buttresses stand out distinctly from the line of the building, and shoot up into pinnacles above the commencement of the roof. When Mr. Whittington visited Amiens, in 1802 or 1803, the original stained glass was still in the windows, and he describes its effect as exceedingly beautiful; but later authorities speak of this ornamental accessory as having been now removed.

The only considerable extent of solid masonry is presented by the west front; and this is magnificent in the extreme. Our engraving is taken from an original drawing by Mr. W. Frome Smallwood, who has delineated most of the other representations of continental buildings that have embellished our publication. There are, it will be observed, three great entrances, the central one of which in particular is of colossal dimensions. The entire breadth of the façade exceeds 160 English feet. "This front exhibits," says Mr. Whittington, "the most gorgeous display of statuary; armies of saints, prophets, martyrs, and angels, line the door-ways, crowd the walls, and swarm round all the pinnacles; nothing can be more rich." The wall is so deep as, in each of the doors, to admit of eight parallel rows of statues running up and ribbing the arch. The execution of many of these figures evinces great talent in the artist, and a correctness of taste which we do not often find in Gothic statuary. In the south porch there are also several fine statues. We give below a copy of one representing the Virgin and her Child, which, both in outline, expression, attitude, and drapery, possesses a simplicity and beauty that would do honour to a better school.



[Virgin and Child, from South Porch.]

Above the central door is a noble circular or madrigal window; others, similar to which, ornament the north and south terminations of the transept. The towers over the extremities of the west front are each of the height of 210 French, that is, about 230 English, feet. There is besides a wooden spire over

the intersection of the nave and transept; but it does not claim much admiration.

The view on entering the church is in the highest degree striking and splendid. Owing to the organ being placed over the west end of the nave, the whole extent of the interior opens at once on the eye. The unusual loftiness of the roof, which is about 145 English feet from the pavement, adds powerfully to the effect. The arches, which unite the rows of columns on each side of the nave, are also very high, and have a most majestic air. Rows of chapels, rich with sculpture and other decorations, display themselves on each side, amidst the blaze of light that falls from the spacious windows. But the crowning ornament is a semi-circular colonnade, penetrated with lancet-shaped arches, which terminates the choir, and is of course full in view. "The choir," says Mr. Whittington, "is superb; it is paved with fine marble, and angels, leaning forward from every pillar, support the lights; at the termination, a mass of clouds, with gold rays bursting forth, has an exciting effect." The length of the choir is 130 feet (French), and between it and the nave there is an interval of 18 feet. The Lady Chapel beyond the choir is 45 feet in length.

Some of the monumental sculptures are worthy of observation—one particularly, in the choir, in which there is a representation of a child weeping. There are also on each side of the grand entrance the tombs of Bishops Evrard and d'Abbeville, the founder and finisher of the cathedral, with their figures in brass. Among the relics preserved in the choir are shown what are called the bones of St. Firmin, the founder of the see of Amiens, about whose æra, however, there is a good deal of difference among the authorities. Some say he lived in the first century; while others assign him to the third, or even the fourth. They used also to show here the head of John the Baptist, which was alleged to have been brought from Constantinople about the beginning of the thirteenth century. At the Revolution, the cathedral of Amiens was pillaged of all its more valuable ornaments; but the fabric was saved from injury by the spirit of the mayor and the inhabitants, who armed themselves in its defence when it was about to be attacked.

THE BILLS OF MORTALITY.

THESE interesting records can be considered only as approximations to the truth; for even if we did not know previously how unauthentic are the sources from which they are compiled, the bills themselves bear upon their face the most obvious evidence of their unprofessional origin. Yet it must be confessed that there has been a rapid improvement in them, indicating to a certain extent the diffusion of medical knowledge. They no longer tell us, as they formerly did, that some persons die planet-struck, or that others are carried off by *headmouldshot* and *horseshothead*: and the insertion of diseases formerly passed over in silence shows not that the diseases are new, but that a little more tact in the discrimination of maladies has been communicated even to the uneducated.

The Bills of Mortality are a part of the domestic history of the years to which they belong; and the prevalence of some diseases, such as dysentery and scurvy, is an infallible proof of the filth and wretchedness of the population which is swept away by them. It is commonly stated by historians that the plague has never appeared in London since 1665; and they attribute its permanent absence to the great fire of the following year, which, by destroying the city, forced, as it were, the citizens to rebuild it in a more salubrious as well as a more commodious style. But, though we do not pretend to deny the advantage produced by this apparent calamity, yet truth compels us to state that

the plague did appear after 1665, and in some years carried off several hundred persons. This fact can easily be ascertained by any one who will take the trouble of inspecting the Bills of Mortality for the twelve or fifteen years following the Great Plague. Instead, however, of dilating on the curious facts with which the old Bills are replete, we will content ourselves at present with a few observations on the last annual Bill, which comprehends the deaths that occurred from the 11th of December, 1832, to the 10th of December, 1833. They amounted to 26,577, being about 350 less than the christenings during the same period. The most fatal disease in the list is consumption, which is stated to have carried off 4355 persons. This number, though large, is smaller in proportion to the total deaths than we have been accustomed to expect; for the deaths from consumption in London have long been estimated at a fourth of the whole, and in some years have exceeded this proportion: thus in 1799 they were 1 in 3.8, and in 1808 they were 1 in 3.6. Every one knows that slight cases of this disease are benefited by a removal to a warmer, and especially a more equable, climate than our own. Madeira most perfectly answers both these conditions, and is consequently the fittest residence for phthisical patients. Some places, which were long but undeservedly recommended, such as Montpellier and Marseilles, are extremely inferior to many warm and sheltered spots in England; for example, Torquay in Devonshire and Hastings in Sussex.

Age and debility are said to have carried off 2952 persons. This is always the most inaccurate item in the Bills; for although debility accompanies the majority of serious diseases, it can scarcely ever be fatal of itself: and the number of those who die of old age merely, that is, of a gradual decay of the vital powers, without any special disorder of a single organ, is so small, that 52 would be much nearer the mark than 2952. Two thousand one hundred and forty deaths are ascribed to convulsions; these occur most frequently in young children, and hardly ever take place without some important derangement of a principal organ, as the brain or alimentary canal. Dr. Darwin supposed, with great ingenuity, that convulsions are not a disease, but a natural effort to relieve disease by getting rid of an accumulation of nervous irritability.

Asthma is stated to have destroyed 1265; but though, strictly speaking, this term can only be applied to difficulty of breathing occurring in paroxysms, in ordinary language it is used for almost any chronic disease attended with short breath; no confidence, therefore, can be placed in the Bills in this particular. One thousand one hundred and fifty deaths are ascribed to cholera. It is probable that many of those attributed to inflammation (2607 in number), as well as to inflammation of the bowels and stomach (499 in number), were in reality caused by the Asiatic cholera. Only 574 deaths are set down to small-pox, a disease which, forty years since, destroyed between 4 and 5000 annually in London. It has been the fashion of late to talk with great distrust of vaccination, as if it had become an exceedingly dubious preventive; but to what can the diminished mortality be attributed, excepting to the cow-pox? Two things, however, may be conceded. First, that re-vaccination, as it never can be injurious, so it may often be commendable; and secondly, that it would be desirable to obtain a fresh supply of matter from the cow, as it is highly probable that the virus may have been weakened by its transmission through a host of human beings. This experiment appears to have been tried with success by Mr. Macpherson, at Moorshedabad in Bengal, in the autumn of 1832. The symptomatic fever was more violent than usual, and the natives in consequence felt more confidence in the efficacy of this little operation. But five deaths are ascribed to dysen-

tery, and four to hydrophobia; the former disease once carried off its thousands in this town, while the latter, though very rare, might be supposed to be exceedingly common, from the fear with which it inspires many sensible persons. M. Buisson has lately stated to the Royal Academy of Sciences in Paris, that he has discovered a cure for hydrophobia. It consists in the use of the vapour-bath, which he has tried in numerous instances, and with only one failure. It remains to be seen if his remedy will succeed in the hands of other practitioners. Five deaths are recorded to have taken place from excessive drinking; but this is merely a list of those sots whom liquor deprived of life immediately after having bereft them of their senses; for, if the truth were known, half the cases put down to dropsy, diseased liver, &c., might be fairly charged to gin.

THE INDIANS OF CALIFORNIA.

THE Indians of California may, without injustice, be classed lower in the scale of mankind even than the Esquimaux. Equally inanimate and filthy in habit, they do not possess that ingenuity and perseverance which their northern neighbours can boast; sullen and lazy, they only rouse themselves when pressed by want; and in the settlements of the missionaries, called Missions, where the cravings of hunger and thirst are satisfied, coercion alone goads them on to labour.

The men are large but not muscular, nor of a manly appearance; their complexion is very dark, and their features partake of the negro cast; the hair is long, but not coarse. The women are also large, their limbs and features regular, but not handsome: they perform all the household work, and are quite slaves to the other sex. Both sexes tattoo, but without any regular design in the marks on the skin; they perforate the lobes of the ears, and wear in them pieces of wood four to six inches in length, ornamented with feathers; their head-dresses and waist-belts are also adorned with decorated wood and pieces of bone, teeth of animals, and mother-of-pearl. They use no pottery, or earthenware, but work baskets so close as to contain fluids. Bows and arrows are their only weapons;—they are of fir, and slightly made; but, to give toughness to the bow, which is about three feet in length, the back part of it is strengthened with a glutinous composition of deer-sinews. The arrows are about the same length, very slender, and armed at the points with small pieces of flint jagged at the edges.

The use of the *temiscal*, or vapour-bath, of which they are passionately fond, is peculiar to this part of North America. It consists of a structure of mud, the floor of which is sunk from four to five feet below the surface of the earth, of a circular form, about fifteen or eighteen feet in diameter. Besides the entrance, which is provided with a short passage to check the too ready admission of the external air, there is a small orifice in the top to allow of the escape of the smoke from a fire kindled in the centre of the *temiscal*. Around this fire, and with their feet towards it, the Indians lie wrapped in their thick woollen blankets, and continue so till the whole frame is reduced to a nervous debility by excessive perspiration: in this state they quit their warm retreat, and plunge themselves into a stream of cold water, near which they are careful always to place their *temiscal*.

The Indians pay their adorations to an evil spirit, who is supposed to preside over every thing, and whose displeasure they wish to avert by worship. This spirit is believed to be supreme, and unassisted in his office by any inferior agents. They have a full conviction of a future existence, and expect to enjoy happiness after this life in some delightful island in the sky, which happiness, being measured by their present ideas, consists in sensual gratification. Immediately after the

breath has left the body, the corpse is burned without removing it from the spot; and, as their huts are not of laborious structure, they share in the conflagration.

The number of petty tribes is almost countless; and, what is singular, almost every tribe speaks a language, or perhaps dialect, which is not understood by the rest. Some dialects have the harsh sound of the Esquimaux, the words generally terminating in *ak, ik, uk*; while others are soft and full of vowels.

Their huts are formed of stakes driven into the ground, generally circular, and thatched with straw: facility of construction being desirable, on account of the tribes frequently changing their stations. From the vermin which abound in these rude dwellings, it becomes necessary to fire them occasionally. Although the country is overrun with horses, the Indians make no use of them.

THE VILLAGE OF BROEK

[From a Correspondent.]

THERE is one particular village in Holland (where all villages and towns are very clean) remarkable even in that country for its excessive cleanliness, and for some other striking peculiarities;—this is Broek, which is situated at the distance of a pleasant morning's excursion from Amsterdam. Although so near to that great city, it does not appear that it has been often visited by foreign travellers. I went there, however, and though I met with little I could recommend to the unqualified imitation of Englishmen, I was so much pleased with the strange novelty that reigned throughout the place, that I would point it out to all future tourists who may have a few hours to spare; and think a brief description of it may possess some general interest.

The journey from Amsterdam is, as is so usual in Holland, an amusing alternation of land and water conveyance. Starting from the city, I crossed its port, and then, after riding a little on terra firma, embarked on the new grand canal, which the industrious-spirited Dutch finished not long ago, after prodigious labour and expense. I was conveyed along this great canal (cut in order to render the navigation from a part of the Zuyder Zee to the port of Amsterdam at once more speedy and safe) for somewhat more than half an hour, when I again set foot on dry land, at a little village curiously built along one of the banks of the said canal.

From this village, a truly Dutch scene presented itself: there was a very wide expanse of pasture-land of the most vivid green,—even greener, I should say, than our fields in England or Ireland,—and as flat, in every part, as a billiard table. Smaller canals, ditches, and here and there lakes or large pools, where several of these threads of water seemed brought to a head, traversed or broke this even ground. The colour of all this inland water, which for the most part is salt or brackish, was a dull olive-green. Numerous herds of the finest and fattest cattle I ever beheld roamed over these wide pastures.

Not many years ago, the whole of this rich plain was laid under water. The villages and communes, among whom it was divided, could not, unfortunately, agree as to the proportion of money and labour to be paid by each towards the repair of a great dike or embankment, which protected them all equally from inundation. The dispute was maintained so obstinately by all parties, that recourse was had to law; and, while advocates were debating, the sea, becoming impatient, entered without further ceremony, and put an end to the suit, by demolishing the dike altogether, and rolling its waves over an immense extent of rich pasture. The damage thus sustained was enormous. The embankment, which had only required repairing, was now to be raised anew; but, with true Dutch perseverance, it was raised. The plain was recovered, and now the

pasture it produces is said to be much finer than ever. It is recorded, to the honour of the inhabitants of the village of Broek, who were among the sufferers, that, at this period of calamity, when all their neighbours required and received assistance from government, or from subscriptions made by the public on their behalf, they (the people of Broek), in consequence of their superior industry and economy, stood in no need of any such aid, and had the spirit to reject it when it was offered them. They even did more than this; for they contributed, with their own funds, to the collection made throughout the kingdom of Holland, for the benefit of those whose grounds had been inundated.

To continue my journey:—at the village on the grand canal, where I landed, I was offered the conveyance of a carriage to Broek; but finding that the distance was short, I preferred walking. In little more than an hour I reached a collection of the cleanest and most brightly-coloured houses that eye can behold. They were not crowded together, but stood at considerable distances from each other, with gardens, flowering orchards, and walks between them. At least two-thirds of these houses were scattered round a small lake, the colour of whose waters was the same dull olive green I have already mentioned. This was Broek. From the open manner in which the village is built, it looks much larger, and a place of greater population, than it is in reality. On inquiry, I found that it did not contain more than 500 inhabitants.

On entering what seemed the principal street, (if street it might be called,) which was a prolongation of the mathematically straight road, with a sleepy canal on one side of it, by which I had come, I found the ground not macadamized or paved with trottoirs on either side as in England, but covered all over with fine, polished stones, and bricks of different colours laid almost with the regularity and neatness of mosaic, and kept clean and bright by constant manual labour. But how shall I describe the houses? To have an idea of them, you must fancy a group of children's doll-houses, span new, without a spot of soil upon them,—clean and bright as they came from the toy-maker's hands;—and (if you can) imagine these dilated to full size, inhabited by men, women and children, and surrounded by gardens, groves and canals. Each house is painted externally with various and bright colours that are renewed once every year at least, and the roof is covered with varnished tiles as lucid as mirrors. Before each house there is a small space, corresponding to the little tailed-in garden so commonly found in front of houses in England; but at Broek this space is not filled with green turf, and plants or flowers, but is occupied by a pavement, composed of variously coloured stones and flints, which are so disposed as to represent in mosaic shrubs, flowers, and other natural objects. Something of this sort of mosaic is found in the ruins of the ancient city of Pompeii, but in the courts, and within the walls of the houses;—here, however, it is fairly in the streets. Nor is this all: beside the door of each house at Broek there are seats made of beautiful foreign woods, and finished as elaborately as our drawing-room furniture. The street doors, the window frames, the eaves, are all made of similar materials and equally well finished. The mosaic pavement in front of the house, the seats, the doors, and the other objects exposed externally, are most carefully washed and polished every day. At the threshold of the house, the visitor finds a pair of slippers to replace the boots or shoes he may have worn in coming, and which might soil the spotless purity that reigns within. It is related with satisfaction of the late Emperor Alexander of Russia, that when, out of curiosity, he visited Broek, he readily complied with the custom of the place and took off his boots before he entered a house.

The floor of the rooms is generally laid with black and yellow marble, so placed as to vary the colours. The principal apartment is almost always ornamented with sculpture in low relief. But it is when you descend from what might be considered mere state rooms, or apartments kept exclusively for show, or grand occasions, and when you examine the common sitting-room, the bed-chamber, the kitchen, the scullery, the dairy, the stable, that the marvellous, and, indeed, over-scrupulous neatness and cleanliness of the people of Broek strike you with their full force. To make use of a common expression, you might, indeed, eat your dinner off any part of either of those places:—Wherever I turned my eye in them I saw nothing but was clean, bright, and polished as a mahogany table or a marble slab. The nicest English kitchen, the cleanest English dairy, or stable, would look dingy and dirty in comparison. In some instances this over-scrupulousness was carried to a degree that appeared ridiculous,—at least to me. In the kitchen there was a copper lever to turn on warm water to wash dishes, &c., which lever was kept as bright as a new halfpenny, and the part exposed to the touch of the hand covered with a hollowed piece of fine wood. In the stable where cows are regularly housed, and curried and rubbed down with all the attention we pay to blood horses, or to pet riding ponies, the tails of the cows were all turned up, and secured to the rafters of the roof by means of strings.

The gardens of these houses abounded with the rarest flowers; they were also ornamented with works of art, much more singular than tasteful. I saw red lions, blue tigers, yellow foxes, green hares, white crows, grottoes incrustated with shells, Chinese vases, moving Mandarins, and other whimsical automata, which were evidences of wealth and taste. The whole appearance of the village of Broek, of its houses and accessories, had, in my fancy, much of a Chinese or Japanese character. What I was told of the retiring, exclusive character of the inhabitants also seemed to recall those distant parts of the world. The people of Broek intermarry with one another, and rarely with those of any other district. They are little disposed to sociability, even among themselves; and seldom give dinners, or any other entertainments. I must mention, however, to their credit, that, until lately, there was no inn in their village, and that they entertained, in their private houses, and with great hospitality, any stranger that went among them. There is now a small inn at Broek where the traveller can be accommodated. To plays, coffee-houses, and such places of amusement, they show an aversion. Their industry is entirely agricultural, or rather that of grazing and rearing cattle. They are sober, steady, economical in their habits of life, and, almost without an exception, rich.

But I have yet to mention one of the most extraordinary customs of the people of Broek. They never open the principal apartment of their house, which is the most finely furnished, except at the baptism, the marriage, and the death of a member of the family;—at all other seasons it is almost hermetically closed, and kept as it were sacred.

What the printing press did for the instruction of the masses in the fifteenth century, the printing-machine is doing in the nineteenth. Each represents an era in the diffusion of knowledge; and each may be taken as a symbol of the intellectual character of the age of its employment.

* * * The Office of the Society for the Diffusion of Useful Knowledge is at 50, Lincoln's-Inn Fields.

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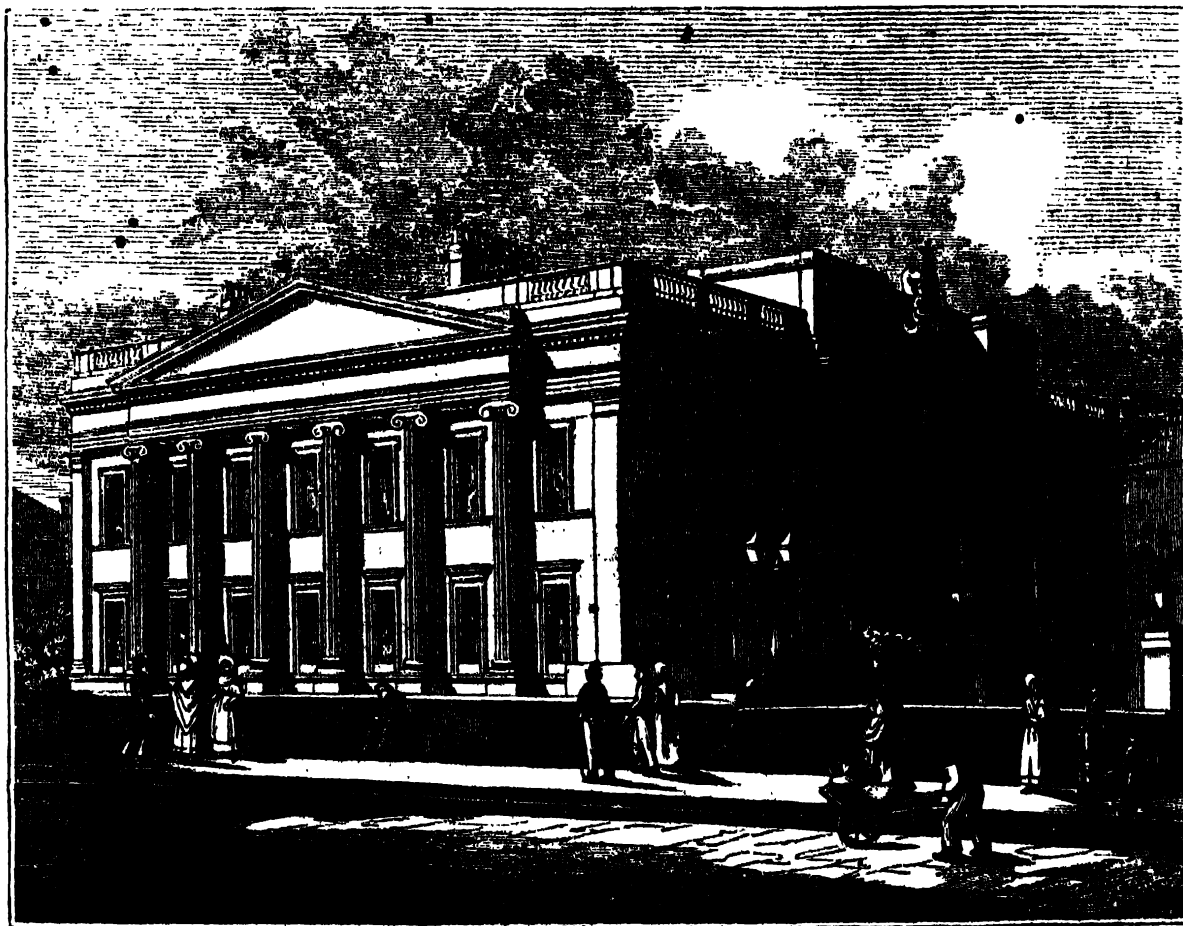
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FISHMONGERS' COMPANY



[Fishmongers' Hall.]

At one time the London Fishmongers appear to have been the wealthiest and most powerful of the City Companies. Originally they formed two great bodies—the Salt-fishmongers, who were incorporated by letters patent in 1433, in the reign of Henry VI.; and the Stook-fishmongers, incorporated by charter from Henry VII. in 1509. Like other crafts, however, the fishmongers certainly existed as a civic association long before the earliest of those dates. In ancient times the consumption of fish in England was undoubtedly much greater in proportion to the population than it now is. As long as the Catholic religion prevailed, an abstinence from flesh was observed by all ranks for a considerable part of the year; and fish were of necessity consumed to a large extent, just as they still are in the Catholic countries of the Continent, where at this day the produce of our Newfoundland fishery finds its chief market. As in these countries, however, so in Catholic England—the great consumption was of dried and salted fish. The names of the two old London companies are an evidence of this. It would have been quite impossible in those days for many parts of the country to have obtained a sufficient supply of any other kind; and, indeed, even now a regular supply of fresh fish could not be generally commanded. Although London and some other large towns consume considerable quantities of the

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article in the uncured state, the great trade must necessarily be in that form of it which admits of being preserved for a length of time, and in that way of being carried, like other merchandise, to the most distant parts of the country, or to foreign countries.

After the Reformation, the legislature attempted to do what the Church had formerly done, in encouraging the use of fish as an article of food among the people generally. A curious act of parliament was passed in 1563 (the 5th Eliz., c. 5), which provided “that, as well for the maintenance of shipping, the increase of fishermen and mariners, and the repairing of port-towns, as for the sparing and increase of the flesh victual of the realm, it shall not be lawful for any to eat flesh on Wednesdays and Saturdays,—unless under the forfeiture of 8*l.* for each offence,—excepting cases of sickness, and also those by special licenses to be obtained.” For these licenses peers were to pay to the poor 1*l.* 6*s.* 8*d.*; knights and their wives 13*s.* 4*d.*; and other persons 6*s.* 8*d.* Even the license, however, did not permit the purchaser to eat beef on the forbidden days, but only mutton, or other kinds of flesh. It is added, “But because no person shall misjudge the intent of this statute, be it enacted, that whoever shall, by preaching, teaching, writing, or open speech, notify that any eating of fish, or forbearing of flesh, mentioned in this statute, is of any necessity for the serving of the

soul of man, or that it is the service of God, otherwise than as other politic laws are and be, then such persons shall be punished as spreaders of false news ought to be." By a subsequent statute (the 27th Elizabeth, c. 2), the prohibition against eating flesh was limited to Saturdays; but it was still commanded that no victuallers should sell flesh either on Fridays or Saturdays, or at all during the season of Lent.

These regulations must have tended to keep up among the people their old habit of living to a considerable extent upon dried and salted fish. Meanwhile the two city companies had been incorporated into one by Henry VIII., in 1536, under the title of "the Wardens and Commonalty of the Mystery of Fishmongers." Thus united, they form the fourth city company, standing immediately after the Drapers', and before the Goldsmiths'.

In 1750, Mr. Tomkyns, the clerk of the Company, in addressing Frederick Prince of Wales on his admission as a freeman, said, "This Company, Sir, is famous for having had near threescore lord mayors of the city of London, besides many of the most considerable merchants and eminent citizens, free of it." At one period, so great was the influence of the Company, that it gave to the city six lord mayors in the space of twenty-four years. Of these the most famous was the last, William Walworth, who, in 1880, slew Watt Tyler in Smithfield, at the head of 30,000 rebels. For this achievement Walworth was knighted by the king, Richard II.; and, according to a common, though somewhat doubtful, tradition, the dagger was added to the City arms.

All this glory, however, seems to have brought upon the Fishmongers not a little envy and hostility from their fellow-citizens. Walworth was succeeded in the mayoralty by the celebrated John of Northampton, who professed himself the advocate of violent changes, and who, had he presided over the city in the time of Watt Tyler's insurrection, would have been much more likely to join the rebels than to kill their chief. John of Northampton (known also by the popular aliases of Cumberdown and Troubletohn) was a draper, and, as such, no friend of the Fishmongers. Availing himself of the power which his place gave him, and also of enmities which had long existed between certain other companies and this prosperous trade, he appears to have set himself not merely to diminish their weight and importance, but to lay his rivals entirely prostrate. He not only got the king to allow foreigners (as Strangers, or persons not freemen, used to be called) to sell fish in London, in violation of the monopoly which the Company of Fishmongers had long enjoyed; but, according to Maitland, he compelled the Company "to acknowledge that their occupation was no craft, and therefore unworthy of being reckoned among the other mysteries." It was declared that, for the future, no lord mayor should be chosen from the Fishmongers. However, Troubletohn's term of authority having ended, the Company was restored, by parliament, to all its old rights and privileges, the right of holding courts for the trial of complaints alone excepted. It was directed that all cases which had formerly been decided in the Company's court should, for the future, be brought before that of the Lord Mayor.

Before the Salt-fishmongers and the Stock-fishmongers were united, they had no fewer than six halls, each having one in the three streets then principally inhabited by the members of the trade; namely, Thames Street (anciently called Fishmonger Row), Old Fish Street, and New Fish Street. On their incorporation into one society, they chose for their common hall one of their two houses in Thames Street, which we are told had been given to them in the reign of Henry VI., by Sir John Cornwall, Lord Franhope. This old building, however, was destroyed in the Great Fire;

and soon after a new hall was erected on the same site, from a design by Sir Christopher Wren. It was a handsome and showy structure. Maitland, writing about the middle of the last century, says, "The front next the Thames, which has been lately repaired and beautified at a very extraordinary expense, exceeds every thing of its kind in this city, and yields a most graceful and pleasant prospect, with a magnificent double flight of stone stairs on the wharf." A view of this building is given in Mr. Brayley's 'Londiniana,' Vol. II., as it appeared in June, 1827. Soon after that date it was taken down to make room for the approaches to the New London Bridge; and a very splendid new hall has since been erected a little to the west of the place where its predecessor stood. Our engraving presents a view of it as seen from the street and the river; and a full description of it may be found in the 'Companion to the Almanac' for 1834. It stands between Thames Street and the river, immediately to the west of the elevated road leading to the bridge, to the level of which the main part of the building is raised by two lower stories; the undermost disposed into cellars, warehouses, and shops, and the higher into offices and other apartments for the use of the Company. The superstructure commences about five or six feet above the level of the Bridge road; and also consists of two stories. It is faced with Portland stone; and there are three distinct fronts, one to the east, another towards Thames Street, and the third looking to the river. The last is ornamented by a colonnade of granite, which supports a terrace. The Thames Street front presents a receding centre and two projecting wings. That to the east is the entrance front, and consists of a range of attached columns in the centre, and two wings adorned with pilasters, with a lofty attic surmounting the entablature. These fronts are all separate compositions; and it is objected to the building that, however great may be their particular merits, they are not adapted to produce that unity of effect which would have been desirable.

CASPAR HAUSER.—No. III.

(Concluded from No. 119.)

As the powers of Caspar's mind opened, he became less interested by the playthings by which he had been at first so entirely absorbed. Even his love for horses was transferred from the wooden representative to the living animal, and in an amazingly short time he became a most accomplished and fearless horseman. His connexion with Professor Daumer, and his intercourse with others, soon led him to feel his own deficiencies. It was very affecting to hear his often-repeated lamentation, that there were so many things, known to the people of the world, which he had yet to learn. But he did not despair. The curiosity, the thirst for knowledge, and the inflexible perseverance with which he fixed his attention to anything he was determined to learn or comprehend, were truly wonderful.

It is painful, but not surprising, to learn that under the new perceptions of his senses and intellect, and the processes they were undergoing, his feelings were far from pleasurable. He longed to go back "to the man with whom he had always been." At home, (in his hole,) he said, he had never suffered so much from head-ache, and had never been so much teased, as since he was in the world. Nevertheless, he was willing to remain at Nuremburg until he had learned what the burgomaster and the professor knew; but then he must be taken home, and he would show the man what he had learned in the meantime. When surprise was expressed that he should wish to return to that abominably bad man, he replied, with mild indignation, "Man not bad—man me no bad done." Against "the

man with whom he had always been," Caspar never showed the least anger, and was never willing to hear that he ought to be punished, until the following beautiful and affecting incident occurred in the gradual development of his mental life.

"It was in the month of August, 1829, when, on a fine summer evening, his instructor showed him for the first time the starry heavens. His astonishment and transport surpassed all description. He could not be satiated with its sight, and was ever returning to gaze upon it; at the same time fixing accurately with his eye the different groups that were pointed out to him, remarking the stars most distinguished for their brightness, and observing the differences of their respective colours. 'That,' he exclaimed, 'is indeed the most beautiful sight I have ever yet seen in the world. But who has placed all these numerous beautiful candles there? who lights them? who puts them out?' When he was told, that like the sun, with which he was already acquainted, they always continue to give light, he asked again, who placed them there above, that they may always continue to give light? At length, standing motionless, with his head bowed down, and his eyes staring, he fell into a deep and serious meditation. When he again recovered his recollection, his transport had been succeeded by deep sadness. He sank trembling into a chair, and asked, why that wicked man had kept him always locked up, and had never shown him any of these beautiful things. He (Caspar) had never done any harm. He then broke out into a fit of crying, which lasted for a long time, and which could with difficulty be soothed; and said, that 'the man with whom he had always been' might now also be locked up for a few days, that he might learn to know how hard it was to be treated so."

We may here remark that Cicero quotes Aristotle as affirming, and repeats the affirmation himself, that a person brought, like Caspar, at an advanced period of life to the first view of the skies and the external world, would not fail to consider all he saw as the work of an intelligent mind, even though he had never heard of a God. We see this remarkably proved in the case of the poor boy whose history we are detailing.

As Caspar Hauser increased in knowledge, and in the experiences and sensations of life, his general appearance and mode of existence became like those of other men. He learned to eat all meats except pork; but all fermented liquors, and even tea and coffee, were still abominable to him. His perceptions gradually became much less rapid and tenacious. "Of the gigantic powers of his memory, and of other astonishing qualities, not a trace remained; and he retained nothing extraordinary but his extraordinary fate, his indescribable goodness, and the exceeding amiableness of his disposition." Yet, while in understanding a man, but in knowledge a child,—and in many things more ignorant than a child,—his language and demeanour could not but often exhibit him as a mingled compound of a child, youth, and man, without its being easy to determine to which portion of life this combination of them all properly belonged. He was himself oppressively conscious of his peculiar situation, and the consciousness gave a shade of melancholy and dejection to his character and countenance. He would lament that he was already so old, and was still obliged to learn what children knew long ago. He would say "I wish I had never come out of my cage. He who put me there should have left me there; then I should never have known and felt the want of anything; and I should never have experienced the misery of never having been a child, and of having come so late into the world."

He was able to give little information concerning the previous portion of his existence, and that confirmed the conclusions at which the people of Nuremberg had

arrived. There was no doubt that he had always lived in a hole (a small, low apartment which he sometimes called a cage) where the light never entered, and a sound was never heard. In this place it appears that he never, even in his sleep, lay with his whole body stretched out, but sat, waking and sleeping, with his legs extended before him, and his back supported in an erect posture. Some peculiar property of his place of rest, or some particular contrivance, appears to have made it necessary that he should always remain in this position. An unusual formation of the knee seems to have resulted from it, so that, when Caspar sat down with the leg and thigh extended horizontally on the floor, the back formed a right angle with the flexure of the thigh, and the knee-joint lay extended so close to the floor that not the smallest hollow was perceptible in the ham, between which and the floor a common playing-card could scarcely be thrust. In this dungeon, whenever he awoke from sleep, he found a loaf and a pitcher of water by him. Sometimes the water had a bad taste, probably from the infusion of opium; for whenever this was the case he could no longer keep his eyes open, but was compelled to fall asleep; and when he afterwards awoke, he found that he had a clean shirt on, and that his nails had been cut; from which, and other circumstances, it appears that Caspar met with a certain degree of careful attention during the period of his incarceration. He never saw the face of the man who brought him his meat and drink, who also never spoke to him, except to utter the "Reuta wihn," &c., which Caspar so unmeaningly repeated when found in Nuremberg. In his hole he had two wooden horses and several ribands: with these horses he had always amused himself so long as he remained awake; and his only occupation was to make them run by his side, and to fix or tie the ribands about them in different positions. Thus one day had passed as the other; but he had never felt the want of anything, had never been sick, and, once only excepted, had never felt the sensation of pain. It is also remarkable that he never had dreams until after he went to live with Professor Daumer, when he regarded them as real appearances.

How long he had continued to live in this situation he knew not, for he had no knowledge of time. He had no recollection of ever having been in a different situation, or in any other than that place. The man with whom he had always been never did him any harm but once, when he struck him a severe blow with a stick or piece of wood, because he had been running his horse too hard, and had made too much noise. Soon after this circumstance, the man came and placed a small table over his feet, and spread some paper upon it; he then came behind him, so as not to be seen by him, took hold of his hand, and moved it backward and forward on the paper, with a lead-pencil which he had stuck between his fingers. Caspar was exceedingly pleased with the black figures which appeared on the white paper; and, when the man was gone, was never tired of drawing these figures repeatedly on the paper. Another time the man came to the place where he lay, lifted him up, and endeavoured to teach him first to stand and then to walk. Finally, the man came one day and, taking him on his back, carried him out of the prison. It appears that he fainted on being brought into the light of day and the fresh air. He noticed none of the objects around him during the journey. He was only conscious that the man who had been leading him put the letter which he had brought with him into his hand and then vanished; after which a citizen observed him and took him to the guard-room.

It seems, from this account, that Caspar had at length become a dangerous burden to those who kept him secretly confined. He had grown restless; his powers

of life were more vivid;—he sometimes made a noise, and it was necessary to keep him quiet by means of severe chastisement. But why they did not get rid of him in some other manner? why they did not destroy him? why he had not been put out of the world as a child?—these are questions which still remain without solution. It seems to have been expected that he would have been lost, as a vagabond or an idiot, in some public institution at Nuremburg; or, if any attention was paid to the recommendation he brought with him, as a soldier in some regiment. But none of these events took place. The unknown foundling met with humane consideration, and became the object of universal public attention. The journals were filled with accounts of this mysterious young man, and with conjectures respecting him;—the development of his mind was every where spoken of,—marvellous things were related to the public of his progress; and it was at last reported that Caspar Hauser was employed in writing a history of his life. At this period, and probably with the view of preventing the execution of this intention, an attempt was made, on the 17th of October, 1829, to assassinate him in the house of Professor Daumer. He escaped with an inconsiderable wound on his forehead, but which, from the excited state of his nervous system, occasioned him much suffering and prolonged indisposition.

At a subsequent period Earl Stanhope adopted the charge of Caspar, and had him removed to Anspach, where he was placed under the care of an able schoolmaster, with whom he also resided. It was intended that he should be brought to this country, in which he would have been tolerably safe from the dread of assassination. This fear, in which he long lived after the first attempt upon his life, seems, indeed, to have considerably subsided after he had remained several years at Anspach without molestation. But his secret enemy had not lost sight of him. As he was leaving the Tribunals on the morning of December 14th, 1833, a stranger, wrapped in a large cloak, accosted him under the pretence of having an important communication to make. Caspar excused himself, as he was then going to dine, but promised to meet the stranger in the afternoon in the palace-garden. The meeting took place: the stranger drew some papers from underneath his cloak, and, while Hauser was about to examine them, stabbed him twice near the heart with a dagger that he had kept concealed. The wounds were not immediately fatal. Caspar was able to return home, but could then only utter in broken syllables, "Palace-garden—purse—Uz—monument." The tutor to whose care he had been committed despatched the soldiers of the police to Uzen's monument, in the palace-garden, where they found a small purse of violet silk, containing a scrap of paper, on which was written, in a disguised hand, "Hauser can tell you well enough why I appear here, and who I am. To save Hauser the trouble, I will tell you myself whence I come; I come from—from the Bavarian frontier,—on the river ——. I will also give you the name, M. L. O." According to Caspar's description, the man was the same who made the previous attempt upon his life at Nuremburg. The unfortunate Caspar Hauser died on the night of December 17th, in consequence of the wounds he had received; and no clue to the mystery of his life and death has yet been obtained, although a reward of 5000 florins has been offered by Lord Stanhope for the discovery of the assassin. The funeral of Caspar Hauser took place on the 26th of December, and was attended by crowds of persons, all moved by the deepest sympathy, for the poor youth was greatly beloved. His preceptor, Dr. Fuhrmann, pronounced an oration over his grave, in the course of which he alluded to the last words of the victim, who, on being asked if he forgave his enemies,

replied, "I have prayed God to forgive all whom I have known; for myself personally I have nothing to forgive as no one ever did me wrong."

OF SOLITUDE.

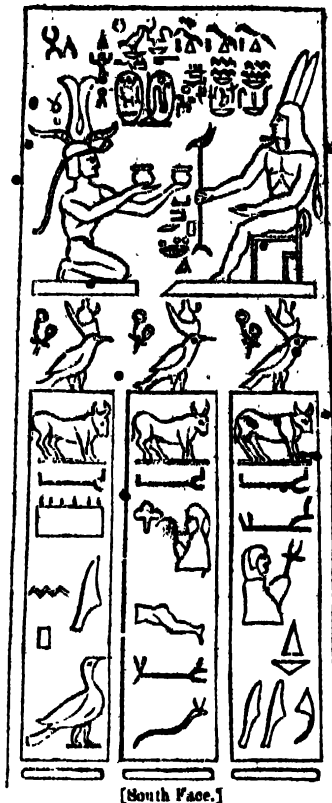
Hail, old patrician trees, so great and good!
Hail, ye plebeian underwood!
Where the poetic birds rejoice,
And for their quiet nests and plenteous food
Pay with their grateful voice.
Hail, the poor Muse's richest manor-seat!
Ye country houses and retreat,
Which all the happy gods so love,
That for you oft they quit their bright and great
Metropolis above.
Here Nature does a house for me erect,
Nature! the wisest architect,
Who those fond artists does despise
That can the fair and living trees neglect,
Yet the dead timber prize.
Here let me, careless and unthoughtful lying,
Hear the soft winds above me flying
With all their warlike houghs dispute,
And the more tuneful birds to both replying
Nor be myself, too, mute.
A silver stream shall roll his waters near,
Gilt with the sunbeams here and there,
On whose enamelled banks I'll walk,
And see how prettily they smile,
And hear how prettily they talk.
Ah! wretched, and too solitary he
Who loves not his own company!
He'll feel the weight of 't many a day,
Unless he call in sin or vanity
To help to bear't away.

Cowley, born 1618, died 1667.

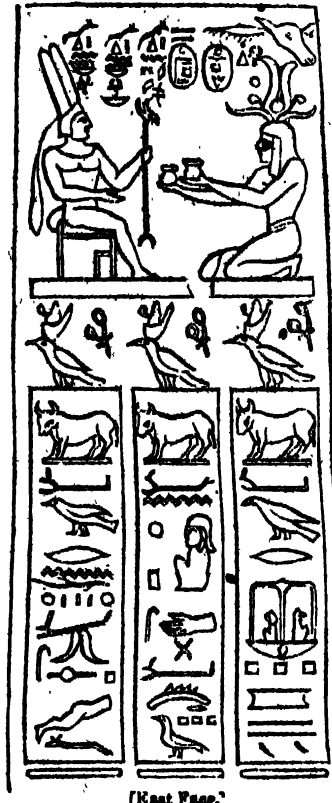
The Grateful Bonze.—A mandarin, who took much pride in appearing with a number of jewels on every part of his robe, was once accosted by an old sly bonze, who, following him through several streets, and bowing often to the ground, thanked him for his jewels. "What does the man mean?" cried the mandarin: "Friend, I never gave thee any of my jewels." "No," replied the other, "but you have let me look at them, and that is all the use you can make of them yourself; so there is no difference between us, except that you have the trouble of watching them, and that is an employment I do not much desire."—*Goldsmith—Citizen of the World*

Feasting the Poor.—Before the present mode of providing for the indigent by a compulsory rate existed, large sums were daily distributed by the kings of England in private alms, and the festivals of particular saints were honoured by feasting many thousands of the poor at their expense. Among the Close Rolls, still extant, by which such entertainment for the poor is ordered, the following—all of which refer to the year 1244, the 28th of Henry III.—may be mentioned. In January, the king's treasurer is commanded to cause 15,000 poor persons to be fed in St. Paul's Church-yard on the day of the Conversion of Paul, and to cause 1500 wax tapers to be made and placed in St. Paul's Church, London, on the same occasion. In the next month, the same person is ordered to give directions for feeding as many persons as can enter the great and lesser hall at Westminster, on the anniversary of Joan, the king's sister, formerly queen of Scotland. In December, 6000 persons are ordered to be fed at Westminster, on the Feast of the Circumcision; and, with a considerate view to the indelicacy of the season, it is particularly directed that all the more aged and infirm should be fed in the greater and lesser hall, the less infirm and middle-aged in the King's Chamber, and the children in the Queen's Chamber.

The Kitchens of King John.—An order, dated April 19, 1206, commands Hugh de Nevill to have the king's kitchen at Clarendon roofed with shingles, and to cause two new kitchens to be erected, one at Marlborough and the other at Ludgershall, to dress the royal dinners in; and it is particularly directed that each kitchen should be provided with a furnace sufficiently large to roast two or three oxen.



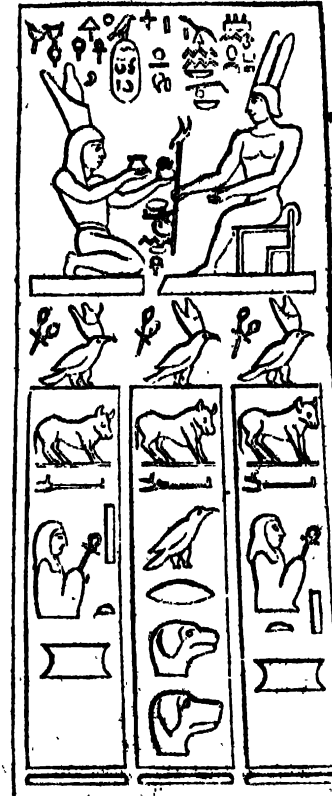
[South Face.]



[East Face.]



[North Face.]



[West Face.]

[Hieroglyphics on the uppermost division of the Obelisk of Luxor.]

WE fancy there are few of our readers but have read descriptions and seen drawings or prints of the two remarkable obelisks called Cleopatra's Needles, near Alexandria, on the coast of Egypt. Of these only one is erect; the other has been for many years prostrate and half buried in sand.

Among the treasures of antiquity found in the interior of Egypt, and particularly in the Thebaid, were, till very lately, two granite columns of precisely the same character as Cleopatra's Needles. Of these, one

remains on the desolate spot; the other, with great labour and expense, has been transported to the flourishing capital of France.

When the French army, in their attempt on Egypt, penetrated as far as Thebes, they were, almost to a man, overpowered by the majesty of the ancient monuments they saw before them; and Bonaparte is then said to have conceived the idea of removing at least one of the obelisks to Paris. But reverses and defeat followed. The French were forced to abandon Egypt;

and the English remaining masters of the seas, effectually prevented any such importation into France.

The project of Bonaparte had the sort of classical precedent he so much admired. Roman conquerors and Roman emperors had successively enriched the capital of the world with the monuments of subdued nations, and with the spoils of art from Sicily, Greece, and Egypt. Among these, the Emperor Augustus ordered two Egyptian obelisks, also of the same character as Cleopatra's Needles, to be brought to Rome. To this end an immense vessel of a peculiar construction was built; and when, after a tedious and difficult voyage, it reached the Tyber with its freight, one of the columns was placed in the Grand Circus, and the other in the Campus Martius, at Rome. Caligula adorned Rome with a third Egyptian obelisk, obtained in the same manner.

The Emperor Constantine, still more ambitious of these costly foreign ornaments, resolved to decorate his new-founded capital of Constantinople with the largest of all the obelisks that stood on the ruins of Thebes. He succeeded in having it conveyed as far as Alexandria; but, dying at the time, its destination was changed, and an enormous raft, managed by 300 rowers, transported the granite obelisk from Alexandria to Rome. The difficulties encountered by the large, flat, awkward vessel do not appear to have occurred during the passage across the Mediterranean, which was, no doubt, effected during the fine, settled summer season, when that sea is often, for weeks together, almost as calm as a small fresh-water lake; but they presented themselves at the passage of the mouth of the Tyber, and in the shallows of that river. When all these obstacles were overcome, it required the labour of thousands of men to set up the obelisk upon its base at Rome.

The Emperor Theodosius, at last, succeeding in bringing an obelisk from Egypt to Constantinople, erected it in the Hippodrome. Though this was of an inferior size (being rather under than over fifty feet), it is recorded that it required thirty-two days' labour and the most complicated contrivances of mechanics to set it upright.

The Constantinopolitan obelisk still stands where it was first erected by the emperor; but those of Rome have been removed by the Popes. In all, there are twelve ancient obelisks erect in the modern city of Rome*.

Thirty years after Bonaparte's first conception of the idea, the French government, then under Charles X., having obtained the consent of the pasha of Egypt, determined that one of the obelisks of Luxor should be brought to Paris. "The difficulties of doing this," says M. Delaborde, "were great. In the first place it was necessary to build a vessel which should be large enough to contain the monument,—deep enough to stand the sea,—and, at the same time, draw so little water as to be able to ascend and descend such rivers as the Nile and the Seine."

In the month of February, 1831, when the crown of France had passed into the hands of Louis Philippe, a vessel, built as nearly as could be on the necessary principles, was finished and equipped at Toulon. This vessel, which for the sake of lightness was chiefly made of fir and other white wood, was named the "Louxor." The crew consisted of 120 seamen, under the command of Lieutenant Verninac of the French royal navy; and there went, besides, sixteen mechanics of different professions, and a master to direct the works, under the superintendence of M. Lebas, formerly a pupil of the Polytechnic School, and now a naval engineer.

M. J. P. Angelina accompanied the expedition in quality of surgeon-major; and to a volume which this gentleman has recently published at Paris we are indebted for an account of its proceedings.

* See 'The British Museum—Egyptian Antiquities,' in the Library of Entertaining Knowledge.

On the 15th of April, 1831 (which we should have thought two months too early in the season), the "Louxor" sailed from Toulon. Some rather violent winds and heavy seas proved that a vessel so built was not very seaworthy, and appear to have somewhat frightened the "Chirurgien-Major;" but they arrived without any serious accident in the port of Alexandria on the 8d of May. After staying forty-two days at Alexandria, the expedition sailed again on the 15th of June for the Rosetta mouth of the Nile, which they entered on the following day, though not without danger from the sand-bank which the river has deposited there. At Rosetta they remained some days; and on the 20th of June, M. Lebas, the engineer, two officers, and a few of the sailors and workmen, leaving the "Louxor" to make her way up the river slowly, embarked in common Nile-boats for Thebes, carrying with them the tools and materials necessary for the removal of the obelisk. On the 7th of July, when the waters of the Nile had risen considerably, the "Louxor" sailed from Rosetta; on the 13th she reached Boulak, the port of Grand Cairo, where she remained until the 19th; and she did not arrive at Thebes until the 14th of August, which was two months after her departure from Alexandria.

The Turks and Arabs were astonished at seeing so large a vessel on the Nile, and frequently predicted she would not accomplish the whole voyage. The difficulties encountered in so doing were, indeed, very serious: in spite of the peculiar build and material, the vessel grounded and struck fast in the sand several times; at other times a contrary wind, joined to the current, which was of course contrary all the way up, obliged them to lie at anchor for days; and the greatest part of the ascent of the river was effected by towing, which exhausting work seems to have been performed, partly by the French sailors, and partly by such Arabs and Fellahs as they could hire for the occasion. An excessive heat rendered this fatigue still more insupportable. Reaumur's thermometer marked from 30° to 38° in the shade, and ascended to 50°, and even to 55°, in the sun*. Several of the sailors were seized with dysentery, and the quantity of sand blown about by the wind, and the glaring reflection of the burning sun, afflicted others with painful ophthalmia. The sand must have been particularly distressing: one day the wind raised it and rolled it onward in such volume as, at intervals, to obscure the light of the sun. After they had felicitated themselves on the fact that the plague was not in the country, they were struck with alarm on the 29th of August, by learning that the cholera morbus had broken out most violently at Cairo. On the 11th of September the same mysterious disease declared itself on the plain of Thebes, with the natives of which the French were obliged to have frequent communications. In a very short time fifteen of the sailors, according to our author, the surgeon, caught the contagion, but every one recovered under his care and skill. At the same time, however, (panic no doubt increasing the disposition to disease,) no fewer than forty-eight men were laid up with dysentery, which proved fatal to two of them.

In the midst of these calamities and dangers, the French sailors persevered in preparing the operations relative to the object of the expedition. One of the first cares of M. Lebas, the engineer, on his arriving on the plain of Thebes, was to erect, near to the obelisks and not far from the village of Luxor, proper wooden barracks,—sheds and tents to lodge the officers, sailors, and workmen, on shore. He also built an oven to bake them bread, and magazines in which to secure their provisions, and the sails, cables, &c., of the vessel.

* As compared with Fahrenheit's, the thermometer generally used in this country, 30° of Reaumur are equal to 98°, 50° to 144°.

The now desolate site on which the City of the Hundred Gates, the vast, the populous, and the wealthy Thebes, once stood, offered them no resources, nor a single comfort of civilized life. But French soldiers and sailors are happily, and, we may say, honourably distinguished, by the facility with which they adapt themselves to circumstances, and turn their hands to whatever can add to their comfort and well-being. The sailors on this expedition, during their hours of repose from more severe labours, carefully prepared and dug up pieces of ground for kitchen-gardens. They cultivated bread-melons and water-melons, lettuces, and other vegetables. They even planted some trees, which thrived very well; and, in short, they made their place of temporary residence a little paradise as compared with the wretched huts and neglected fields of the oppressed natives.

[To be concluded in the next Number.]

THE PULSE.

EVERY one knows that among the numerous inquiries and examinations which precede the prescription of a careful physician, the state of the pulse is never omitted; yet as it is probable that few of our readers are acquainted with the reasons for this inquiry, or, what is the same thing, with the facts to be learned from it, we think it may not be uninteresting if we enumerate some of the more prominent ones.

It is almost unnecessary to premise that by the pulse is meant the beat of an artery, and that the one commonly chosen for examination is the radial artery, which beats at the wrist. The first point generally attended to is the number of the beats; and since in this, as in all other medical questions, it is necessary to be acquainted with the state of health in order to recognize any deviation from it, we must mention the ordinary frequency of the pulse at different ages. In the new-born infant, it is from 130 to 140 in a minute; but decreases in frequency as life advances; so that, in a middle-aged adult in perfect health, it is from 72 to 75. In the decline of life, it is slower than this, and falls to about 60. It is obvious that if we could suppose a practitioner ignorant of these plain facts, he would be liable to make the most absurd blunders, and might imagine a boy of ten to be labouring under some grievous disease because his pulse had not the slow sobriety of his grandfather's. A more likely error is, to mistake the influence of some temporary cause for the effect of a more permanent disease: thus, in a nervous patient, the doctor's knock at the door will quicken the pulse some 15 or 20 beats in a minute. This fact did not escape the notice of the sagacious Celsus, who says, "The pulse will be altered by the approach of the physician and the anxiety of the patient doubting what his opinion of the case may be. For this reason, a skilful physician will not feel the pulse as soon as he comes; but he will first sit down with a cheerful countenance, and ask how the patient is,—soothing him, if he be timorous, by the kindness of his conversation, and afterwards applying his hand to the patient's arm." —(De Medica, lib. iii. cap. 7.*)

Granting, however, that these sources of error are avoided, the quickness of the pulse will afford most important information. If in a person, for example, whose pulse is usually 72, the beats rise in number to 98, some alarming disease is certainly present; or, on the other hand, should it have permanently sunk to 50, it is but too probable that the source of the circulation,

the heart itself, is labouring under incurable disease, or that some other of the great springs of life is irretrievably injured.

Supposing, again, the pulse to be 72, each beat ought to occur at an interval of five-sixths of a second; but should any deviation from this rhythm be perceived, the pulse is then said to be irregular. The varieties of irregularity are infinite; but there is one so remarkable as to deserve particular mention. It will happen sometimes that the interval between two beats is so much longer than was expected, that it would seem that one beat had been omitted; in this case the pulse is said to be an intermittent one. When the action of the heart is irregular, the beat of the pulse is so likewise; but it will occasionally happen that the latter irregularity takes place without the former one, from some morbid cause existing between the heart and the wrist. It is hardly necessary to observe, that, in all doubtful cases, the physician examines the pulsation of the heart as well as that at the wrist,—just as the diligent student, discontented with the narrow limits of provincial information, repairs to the metropolis to pursue his scientific inquiries.

The strength or feebleness of the pulse, its hardness or softness, and innumerable other qualities, might be discussed here; but, from the great difficulty attending any examination of these points, and the technical niceties involved in anything more than a bare mention of them, we omit them. There is one point, however, which it would be unpardonable to pass over in silence: sometimes no pulsation can be felt at the usual part of the wrist. This may proceed from so great a languor of the circulation that it is imperceptible at the extremities; or from the radial artery (the one usually felt) being ossified; or from an irregular distribution of the arteries of the fore-arm.

The Arrival of the first Elephant ever seen in England.—Matthew Paris relates that, about the year 1255, an elephant was sent over to England as a grand present from the king of France to Henry III.; and states, that it was believed to be the first and only elephant ever seen in England, or even on this side the Alps; and that consequently the people flocked in great numbers to behold so great a novelty on its arrival. Among the Close Rolls one of about this date is extant, in which the sheriff of Kent is ordered to proceed to Dover in person to arrange in what manner the king's elephant might be most conveniently brought over; and to provide a ship, and other things necessary, to convey it; and directing that, if the king's mariners judged it practicable, it should be brought to London by water. Another order was shortly after issued to the sheriffs of London, commanding them to cause to be built, without delay, in the Tower of London, a house, forty feet in length and twenty feet in breadth, for the king's elephant; and directing that it should be so strongly constructed that, whenever there should be need, it might be adapted to, and used for, other purposes.

Illuminated Printing.—In many of the old printed books, the initial letters, and occasionally other parts, were printed in red. This was done by two workings at press, and was an imitation of the earlier fashion of *illuminating* manuscripts. The practice is still followed in some almanacs, the saints' days and holydays being "red-letter days." Some ingenious contrivances have been devised for working in various colours; and a few years since, a curious book was written and published on the subject by Mr. Savage. Still more recently, printing in gold and other metals has been practised. This is done by printing with a sort of size, and afterwards applying the metal leaf. Some very handsome specimens of this have been produced by Messrs. Howlett and Brimmer; but, of course, the process is too costly and too tedious ever to enter into competition with common printing, or to be used for other than purposes of luxury.

* The lapse of eighteen centuries has not destroyed the utility, much less the beauty, of the eight books on Medicine bequeathed by Celsus to posterity; they are unrivalled for perspicuous elegance and laconic good sense. Celsus is one of the writers of the Augustan age, and is worthy of the times in which he flourished.

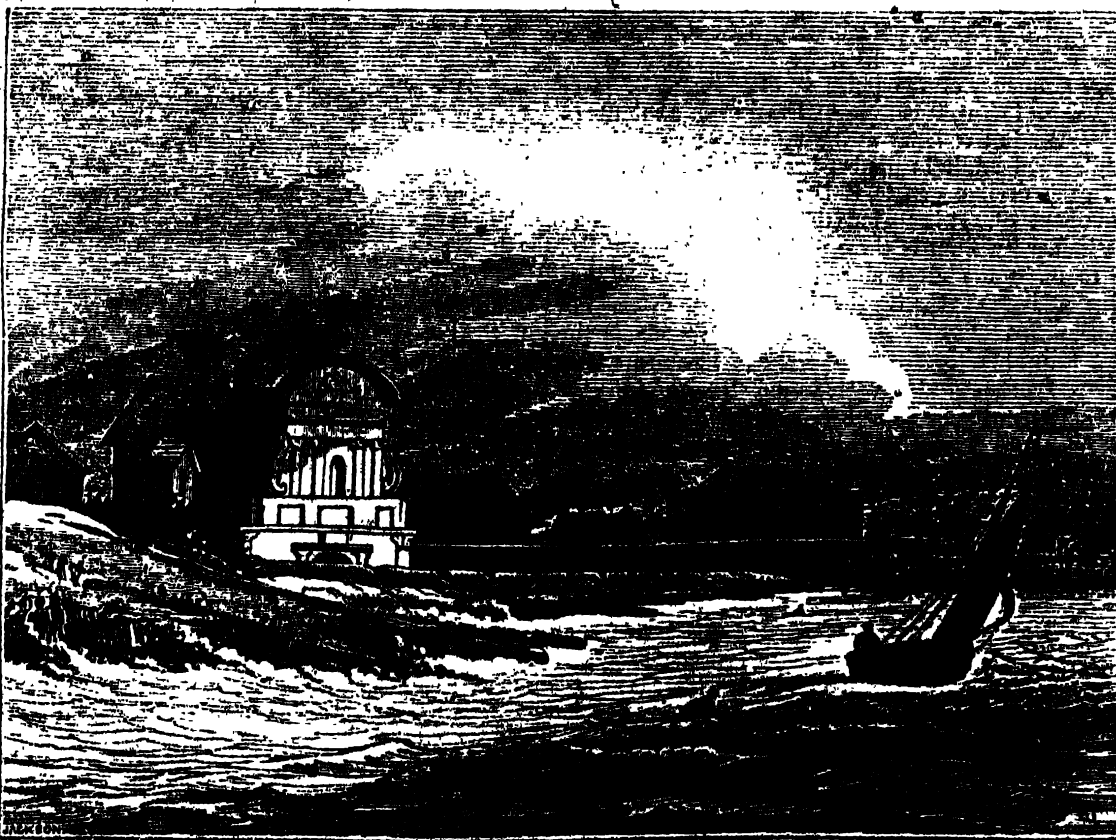
TILBURY FORT.

THE small village of Tilbury is situated on the Thames, about twenty-seven miles from London, and exactly opposite to Gravesend. It appears to have been a place of some consequence in the early period of the Saxon dominion in England, having been an episcopal seat of Cedda, Bishop of the East Saxons, who, in the seventh century, propagated the Christian religion in this country, and built churches in several places, but especially, as Bede reports, "in the city which, in the language of the Saxons, is called Ythancestre; and also in that which is named Tillaburgh (the first of which places is on the banks of the river Pant, the other on the banks of the Thames), where, gathering a flock of servants of Christ, he taught them to observe the discipline of a regular life, as far as those rude people were then capable." Tillaburgh is unquestionably the present Tilbury; but Ythancestre, which appears to have stood at the mouth of the river Pant, or Blackwater, is supposed to have been engulfed by the sea. The population of West Tilbury was 249 at the last census.

A medicinal spring was discovered here in 1727; considered very beneficial in cases of hæmorrhage, scurvy, and some other disorders. In a chalk hill near this place there are several curious caverns called Danes' Holes: they are constructed of stone, narrow at the entrance, and very spacious at the depth of thirty feet. The neighbourhood still affords some traces of the camp formed by Queen Elizabeth in 1588, when the kingdom was threatened by the Spanish Armada. But the most interesting object the place affords is the Fort,

represented in our engraving. It was originally built as a kind of block-house by Henry VIII., but was enlarged into a regular fortification by Charles II., in the year 1667, after the Dutch fleet had sailed up the river, and burned three English men-of-war at Cnatham. It was planned by Sir Martin Beckman, engineer to Charles II., by whom the works at Sneerness were also designed. The esplanade is very large, and the bastions are the largest of any in England. They are faced with brick, and surrounded with a double ditch, or moat, the innermost being 180 feet broad, and having a good counterscarp. On the land side, there are two small redoubts of brick; but the chief strength on this side consists in its being able to lay all the adjacent level under water. On the side next the river is a very strong curtain, having in the middle a strong gate called the Water Gate, and the ditch palisaded. At the place intended for the water bastion, which was never built, stands a high tower, erected by Queen Elizabeth, called the Block-house. Various additions have been made to this fort since the time of Charles II.; and it is now mounted with several formidable batteries; and contains comfortable barracks and other accommodations for the garrison, which consists of a fort-major and a detachment of invalids.

The four Roman proconsular ways crossed each other in this vicinity; and there was an ancient ferry over the Thames, said to be the place where Claudius passed in pursuit of the Britons. The lofty tower of the ancient manor-house of Gossalyne, in East Tilbury, was battered down by the Dutch in the reign of Charles II.



[Tilbury Fort.]

THE PENNY MAGAZINE

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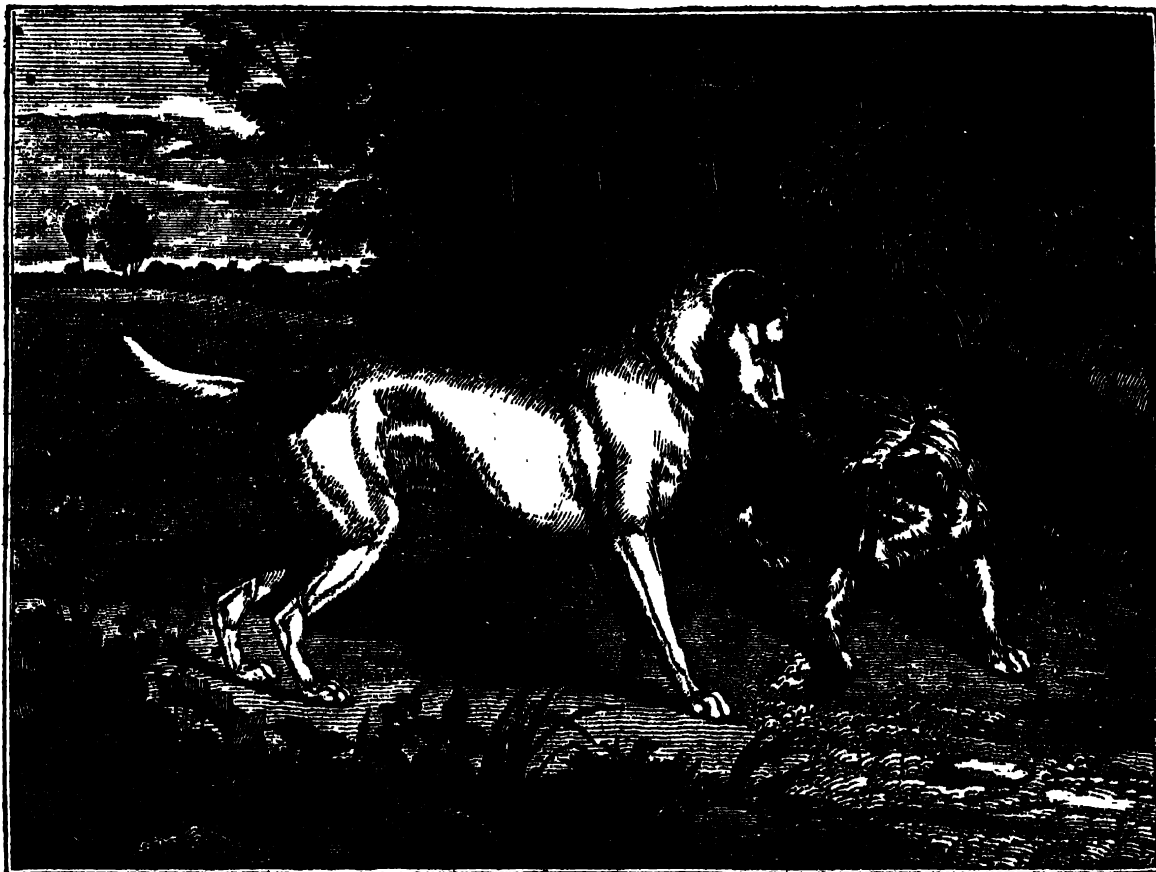
Society for the Diffusion of Useful Knowledge.

121.]

PUBLISHED EVERY SATURDAY.

[FEBRUARY 22, 1834.]

THE TERRIER.



[English and Scotch Terriers.]

The name of this species of dog seems to be derived from the peculiar avidity which it exhibits in the pursuit of all animals that burrow. There are two kinds of terriers, the rough-haired Scotch and the smooth English: the former is certainly the purest in point of breed, and the latter appears to have been produced by a cross from him.

The Scotch terrier is rather low in stature, rarely exceeding more than twelve or fourteen inches in height, with a strong, muscular body, and short and stout legs. The ears are small and half-pricked; the head rather large in proportion to the size of the body, and the muzzle considerably pointed. This species is generally of a black or sand colour. The English terrier is a handsome, sprightly dog, and generally black on the back, sides, upper part of the head, neck, and tail; the belly and throat are of a very bright reddish-brown, with a spot of the same colour over each eye. The hair is short and somewhat glossy, the tail rather truncated, and carried slightly upwards; the ears are small, somewhat erect, and turned back at the tips; the head is small in proportion to the size of the body, and the snout is moderately elongated. The English terrier varies considerably in size and strength, and is to be met with from ten to eighteen inches in height.

Both species are so similar in their habits and powers, that they may be described without minute discrimination.

The smell of the terrier is exceedingly acute; and,
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from its expertness in forcing foxes and other game out of their coverts, it is an indispensable attendant on every pack of hounds: in this employment, from its greater lightness and length of leg, the English terrier is better able than the Scotch to keep up with the pack. It is of considerable service to man from its great hostility to rats, polecats, mice, and other such animals. The extraordinary power of the terrier in the destruction of rats was strikingly shown in the exhibition of the "Dog Billy," who is said to have killed a hundred in five minutes. Even the badger, though a formidable quadruped, it encounters with great courage, and not often without success, though it seldom fails to suffer severely in such engagements. To the fox as well as the badger it is an implacable enemy, and pursues every kind of game secreted in subterraneous retreats with more ardour than any other dog. The huntsmen are very particular in their selection of terriers for a fox-hunting establishment: their size is not so much regarded as their strength and spirit. The black and black-tanned, or rough, wire-haired pied, are generally preferred. White in a terrier is said to indicate impurity of breed; and those inclining to a reddish colour are also considered objectionable by sportsmen.

The following anecdotes, the first relating to the Scotch, and the other to the English, terrier, are taken from Brown's 'Anecdotes of Dogs.'—"At Dunrobin castle, in Sutherlandshire, the seat of the Marchioness of Stafford, there was, in May 1820, to be seen a terrier

litch nursing a brood of ducklings. She had had a litter of whelps a few weeks before, which were taken from her and drowned. The unfortunate mother was quite disconsolate till she perceived the brood of ducklings, which she immediately seized and carried to her lair, where she retained them, following them out and in with the greatest attention, and nursing them after her own fashion with the most affectionate anxiety. When the ducklings, following their natural instinct, went into the water, their foster-mother exhibited the utmost alarm; and as soon as they returned to land, she snatched them up in her mouth and ran home with them. What adds to the singularity of the circumstance is, that the same animal, when deprived of a litter of puppies the year following, seized two cock chickens, which she reared with the like care she bestowed on her own family. When the young cocks began to try their voices, their foster-mother was as much annoyed as she formerly seemed to be by the swimming of the ducklings, and never failed to repress their attempts at crowing."

The following anecdote, related by Mr. Blaine, is a pleasing proof of canine sagacity, and occurred in the parish of Marylebone, London:—"A servant had carelessly left a child, four years old, alone, whose cap caught fire from a candle with which she was amusing herself. A small terrier, observing the situation of the child, ran up stairs to the room where the servant was, and barked most vehemently, nor would he cease till he came down, by which assistance was obtained. Had it not been for the intelligence of the dog, the poor child, instead of being only slightly scorched, would most probably have lost its life; for the accident happened in the kitchen, and the domestic left in charge of it had gone to the very top of the house, out of the reach even of the cries of the infant."

THE OBELISK OF LUXOR.

[Continued from No. 120.]

IN the first volume of the 'British Museum,' which contains some brief notices on Egyptian antiquities, the reader will find a description of obelisks generally, together with their history, and a particular account of those of Luxor. The latter account, and a view of the said obelisks, and part of the magnificent temple of Luxor, before which they stood, have also been given in No. 14 of the 'Penny Magazine.' Referring our readers, then, to that description and that engraving, we need only add on the present occasion that it was the smaller of the two obelisks the French had to remove. But this smaller column of hard, heavy granite was 72 French feet high, and was calculated to weigh upwards of 240 tons*. It stood, moreover, at the distance of about 1200 feet from the Nile, and the intervening space presented many difficulties.

M. Lebas, the engineer, commenced by making an inclined plane, extending from the base of the obelisk to the edge of the river. This work occupied nearly all the French sailors and about 700 Arabs during three months, for they were obliged to cut through two hills of ancient remains and rubbish, to demolish half of the poor villages which lay in their way, and to beat, equalize, and render firm, the uneven, loose, and crumbling soil. This done, the engineer proceeded to make the ship ready for the reception of the obelisk. The vessel had been left aground, by the periodical fall of the waters of the Nile, and matters had been so managed that she lay imbedded in the sand, with her figure-head pointing directly towards the temple and the granite column. The engineer, taking care not to touch the keel, sawed off a transverse and complete section of the

* According to M. Angelin, the other obelisk is three French feet higher.

front of the ship;—in short, he cut away her bows, which were raised, and kept suspended above the place they properly occupied by means of pulleys and some strong spars, which crossed each other above the vessel.

The ship, thus opened, presented in front a large mouth to receive its cargo, which was to reach the very lip of that mouth or opening, by sliding down the inclined plane. When this section of the ship was effected, they took care that she should lie equally on her keel; and where the sand or mud was weak, or had fallen away from the vessel, they supplied proper supports and props to prevent the great weight of the column from breaking her back. The preparations for bringing the obelisk safely down to the ground lasted from the 11th of July to the 31st of October, when it was laid horizontally on its side.

The rose-coloured granite of Syene (the material of these remarkable works of ancient art), though exceedingly hard, is rather brittle. By coming in contact with other substances, and by being impelled along the inclined plane, the beautiful hieroglyphics sculptured on its surface might have been defaced, and the obelisk might have suffered other injuries. To prevent these, M. Lebas encased it, from its summit to its base, in strong thick wooden sheathings, which were well secured to the column by means of hoops. The western face of this covering, which was that upon which the obelisk was to slide down the inclined plane, was rendered smooth, and was well rubbed with grease to make it run the easier.

The mechanical contrivance to lower the column, which was by far the most critical part of these operations, is described as having been very simple. A cable of immense strength was attached to a strong anchor deeply sunk in the earth, and well secured at some distance from the monument. This cable was carried forward and made fast to the top of the obelisk, and then descending in an acute angle in the rear of the obelisk, the cable was retained in an opposite direction to the anchor by means of an enormous beam of wood, and by a series of pulleys and capstans. The column had been perfectly cleared from the sand and earth round its base, and walls of a certain height erected to keep it in the proper line of descent. Other works at its base prevented the column from sliding backwards in its descent, and a strong bed made of oak, and immediately connected with the inclined plane, was ready to receive it, and pass it to the plane when it reached a certain low angle of declination.

To move so lofty and narrow an object from its centre of gravity was no difficult task,—but then came the moment of intense anxiety! The whole of the enormous weight bore upon the cable, the cordage, and machinery, which quivered and cracked in all their parts. Their tenacity, however, was equal to the strain, and so ingeniously were the mechanical powers applied, that eight men in the rear of the descending column were sufficient to accelerate or retard its descent. For two minutes the obelisk was suspended at an angle of 30°,—but, finally, it sank majestically and in perfect safety to the bed of the inclined plane.

On the following day the much less difficult task of getting the obelisk on board the ship was performed. It only occupied an hour and a half to drag the column down the inclined plane, and (through the opening in front) into the hold of the vessel. The section of the suspended bows was then lowered to the proper place, and readjusted and secured as firmly as ever by the carpenters and other workmen. So nicely was this important part of the ship sliced off, and then put to again, that the mutilation was scarcely perceptible.

The obelisk, as we have seen, was embarked on the 1st of November, 1831, but it was not until the 18th of August, 1832, that the annual rise of the Nile

afforded sufficient water to float their long-stranded ship. At last, however, to their infinite joy, they were ordered to prepare everything for the voyage homewards. As soon as this was done, sixty Arabs were engaged to assist in getting them down the river (a distance of 180 leagues), and the Louxor set sail.

After thirty-six days of painful navigation, but without meeting with any serious accident, they reached Rosetta; and there they were obliged to stop, because the sand-bank off that mouth of the Nile had accumulated to such a degree, that, with its present cargo, the vessel could not clear it. Fortunately, however, on the 30th of December, a violent hurricane dissipated part of this sand-bank; and, on the 1st of January, 1833, at ten o'clock in the morning, the Louxor shot safely out of the Nile, and at nine o'clock on the following morning came to a secure anchorage in the old harbour of Alexandria.

Here they awaited the return of the ~~due~~ season for navigating the Mediterranean; and the Sphinx (a French man-of-war) taking the Louxor in tow, they sailed from Alexandria on the 1st of April. On the 2nd, a storm commenced, which kept the Louxor in imminent danger for two whole days. On the 6th, this storm abated; but the wind continued contrary, and soon announced a fresh tempest. They had just time to run for shelter into the bay of Marinara when the storm became more furious than ever.

On the 13th of April they again weighed anchor, and shaped their course for Malta; but a violent contrary wind drove them back as far as the Greek island of Milo, where they were detained two days. Sailing, however, on the 17th, they reached Navarino on the 18th, and the port of Corfu, where, they say, they were kindly received by Lord Nugent and the British, on the 23d of April. Between Corfu and Cape Spartivento, heavy seas and high winds caused the Louxor to labour and strain exceedingly. As soon, however, as they reached the coast of Italy, the sea became calm, and a light breeze carried them forward, at the rate of four knots an hour, to Toulon, where they anchored during the evening of the 11th of May.

They had now reached the port whence they had departed, but their voyage was not yet finished. There is no carriage by water, or by any other commodious means, for so heavy and cumbersome a mass as an Egyptian obelisk, from Toulon to Paris (a distance of above 490 miles). To meet this difficulty they must descend the rest of the Mediterranean, pass nearly the whole of the southern coast of France, and all the south of Spain—sail through the Straits of Gibraltar, and traverse part of the Atlantic, as far as the mouth of the Seine, which river affords a communication between the French capital and the ocean.

Accordingly, on the 22d of June, they sailed from Toulon, the Louxor being again taken in tow by the Sphinx man-of-war; and, after experiencing some stormy weather, finally reached Cherbourg on the 5th of August, 1833. The whole distance performed in this voyage was upwards of fourteen hundred leagues.

As the royal family of France was expected at Cherbourg by the 31st of August, the authorities detained the Louxor there. On the 2d of September, King Louis Philippe paid a visit to the vessel, and warmly expressed his satisfaction to the officers and crew. He was the first to inform M. Verrinat, the commander, that he was promoted to the rank of captain of a sloop-of-war. On the following day, the king distributed decorations of the legion of honour to the officers, and entertained them at dinner.

The Louxor, again towed by the Sphinx, left Cherbourg on the 12th of September, and safely reached Havre de Grace, at the mouth of the Seine. Here her old companion, the Sphinx, which drew too much

water to be able to ascend the river, left her, and she was taken in tow by the Héva steam-boat. To conclude with the words of our author: "At six o'clock (on the 13th) our vessel left the sea for ever, and entered the Seine. By noon we had cleared all the banks and impediments of the lower part of the river; and, on the 14th of September, at noon, we arrived at Rouen, where the Louxor was made fast before the quay d'Harcourt. Here we must remain until the autumnal rains raise the waters of the Seine, and permit us to transport to Paris this pyramid,—the object of our expedition." This event has since happened, and the recent French papers announced that the Louxor would be shortly received into a cradle constructed for its reception.

On some future occasion we will give an account of the landing and erecting the Egyptian column at Paris.

BEAUVAIS.

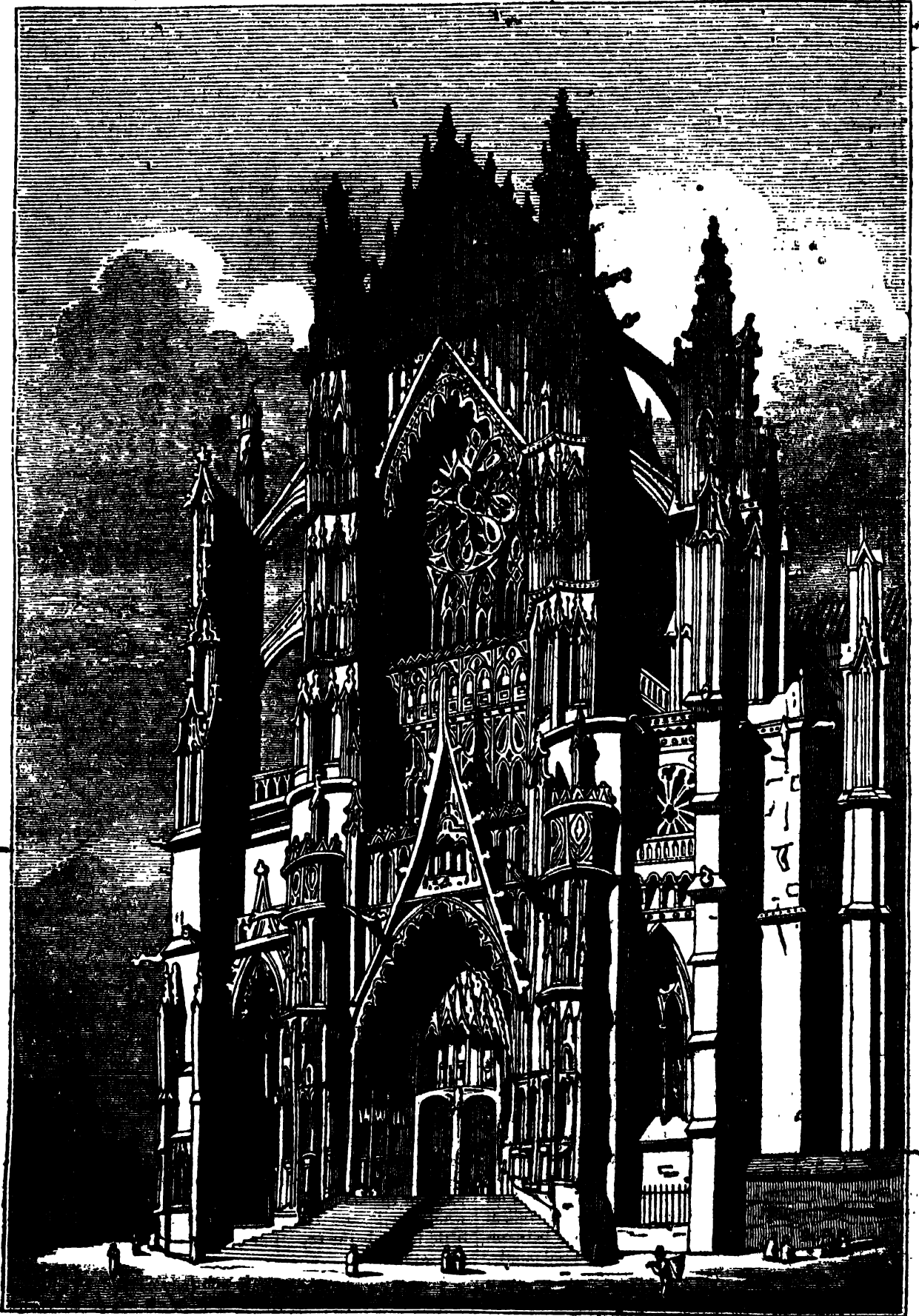
BEAUVAIS is a city of France, the capital of the department of the Oise, situated upon the Thérain, in a valley surrounded by woody hills. The site of Beauvais was occupied, in very remote times, by a city, which is mentioned in the 'Commentaries of Cæsar' by the name of Cæsaro-magus, and which it afterwards dropped for that of Bellovacum, derived from a Belgian people, the Bellovaci, by whom it was inhabited. It was ravaged by the Normans in the year 850, and at other periods; and few cities have experienced more calamities and frequent fires than Beauvais. The town still exults in the glory of having sustained two very formidable sieges without being taken. The first of these was in the year 1443, when the English were repulsed by the devoted heroism of Jean Signière; the second was in 1472, when Charles the Bold, Duke of Burgundy, unsuccessfully besieged it with 80,000 men. On this occasion, the females of Beauvais, headed by Jane Hachette, joined the garrison and fought with uncommon intrepidity. This heroine herself, on one occasion, seized the flag which the enemy were about to plant on the walls, and threw from the rampart the soldier by whom it was carried. The assailants were obliged to withdraw. Until the revolution, this event was annually commemorated, on the 10th of July, by a procession, in which the women marched first.

The cathedral church of Beauvais, the south front of which is represented in our engraving, is the principal architectural ornament of the town. The building was commenced in the year 1391. It is particularly noted for its choir, which is regarded as a master-piece of Gothic architecture, being as much admired for its height and breadth as for the lightness of the work and the fine arrangement of the vault and its outworks. It has ten pillars on each side of its length, with chapels all around. The pavement of the sanctuary, which is very large, is all of marble. This magnificent building seems never to have been finished. The nave is incomplete, and there are neither towers nor apparent belfries. The church possesses, nevertheless, some great bells, which are placed in a separate building, about fifteen paces from the front entrance. Near the cathedral there are four small collegiate churches which are distinguished as "the four daughters of St. Peter," to which saint the cathedral is dedicated. Our woodcut represents the South Front of the Cathedral. It can only be viewed from a very narrow street, but its magnificent dimensions, and its elaborate ornaments, afford a remarkable specimen of the ecclesiastical architecture of France.

Besides the cathedral, there are few buildings at Beauvais that claim particular notice. The Town-hall is a fine edifice, and contains a picture representing the heroic action of Jane Hachette. There is one large

hospital, a communal college, a public library containing 6000 volumes, a cabinet of natural history, and a hall for exhibitions. The place possesses some considerable manufactures, principally of rich tapestries, serges, and woollen cloth, which give it a respectable trade. The population is 12,800.

The situation of Beauvais is not unpleasant, but the town, on the whole, does not present an agreeable aspect. The houses are built chiefly of wood, a circumstance which accounts for the frequent fires to which we alluded. The streets are sufficiently wide, and the ramparts afford pleasant and shady promenades.



[South Front of the Cathedral of Beauvais.]

STONEHENGE.



[Remains of Stonehenge.]

STONEHENGE is the most remarkable ancient monument now remaining in this island; nor indeed is there known anywhere to exist so stupendous an erection of the same character. Even in its present half-ruined state, the venerable pile retains a majesty that strikes, at the first glance, both the most refined and the rudest eye: and the admiration of the beholder grows and expands as a more distinct conception of the original plan of the structure gradually unfolds itself from amidst the irregular and confused mixture of the standing and the fallen portions which for a short time perplexes the contemplation. It is then felt to be the produce, not only of great power and skill, but of a grand idea.

The situation is a highly commanding one. Stonehenge stands at a short distance north-west from the town of Amesbury, on the brow of one of those broad and gentle elevations which in many places slightly undulate the vast level of Salisbury Plain. The turnpike-road from Amesbury to Shrewton, running in a north-west direction, passes close by it. It rises on the traveller's left as he proceeds from Amesbury, and is approached by a short avenue, marked by the traces of a ditch on each side. The direction of this avenue is from north-east to south-west, and it has been crossed obliquely by the turnpike-road. It appears to have formed the only entrance to the enclosure in which the building stands, which is formed by a circular ditch, three hundred and sixty-nine yards in circumference, and having a slight rampart on the inner side. It has been supposed that, besides this, there were two other entrances: but both Dr. Stukeley and Sir Richard Colt Hoare, whose descriptions of Stonehenge are the fullest and most careful that have been published, and between whom there is a perfect agreement in all material points, are decidedly of opinion that these breaks in the ditch have been made in modern times, probably to allow the passage of the carts, by which so many of the stones have been carried away.

The building stands in the centre of this circular area. An outer circle of enormous upright blocks, having others placed upon them, as the lintel of a door is placed upon the side-posts, so as to form a kind of architrave, has enclosed a space of a hundred feet in diameter. The upright stones in this circle had been originally thirty in number, but only seventeen of them are now standing. The portion of the circle facing the north-east is still tolerably entire; and the doorway at the termination of the avenue may be said to be in perfect preservation. It consists of two upright stones, each thirteen feet in height, and between six and seven in breadth, with a third block placed over them, of about twelve feet in length, and two feet eight inches in depth. The space between the two posts is five feet, which is rather a wider interval than occurs between any two of the other pillars. Throughout the circle the broad side of the stone is placed in the line of the circumference, so that there must have been more of wall than of open space in the proportion of about six and a half to five. The imposts are fixed upon the uprights throughout by the contrivance called a tenon and mortise; the ends of the uprights being hewn into tenons or projections, and corresponding hollows being excavated in the imposts. They are oval or egg-shaped. Of course there are two tenons on each upright, and two mortises in each of the imposts, which are of the same number with the uprights. The principal workmanship must have been bestowed upon these fittings: for although the marks of the hewer's tool are visible upon the other parts of the stones, their surface has been left, upon the whole, rude and irregular. They are made to taper a little towards the top; but even in this respect they are not uniform.

Within this great circle is another, formed by stones not only much smaller, but also much ruder in their outline. Of these there had originally been forty, but only twenty of them can now be traced. This circle

has never had any imposts: it is about eighty-four feet in diameter, and, consequently, the interval between it and the outer circle is eight feet.

The next enclosure has been formed of only ten stones, but they are of very majestic height, exceeding even that of those in the outer circle. They have been disposed in five pairs, and in the form of a half oval, or rather of a horseshoe; the upper part facing the north-east, or the great door. The two pairs at the terminations of the curve, which are distant from each other about forty feet, are each sixteen feet three inches high; but the height of the next two pairs is seventeen feet two inches; and that of the last pair, the station of which had been directly facing the opening, was twenty-one feet and a half. A striking effect must have been produced by this ascending elevation. A variety and a lightness must have also been given to the structure by the arrangement of the stones here; not at equal distances, as in the two exterior rows, but in pairs, the interval between each two pairs being much greater than that between the two stones composing each pair. The uprights of this row have imposts over them, as in the outer circle. One of these imposts is sixteen feet three inches long. Of course the imposts here, not forming a continuous architrave, are only five in number. Of the five pairs, or rather *trilithons* (that is, combinations of three stones), although some of the shafts have been injured and mutilated, all are still in their places, except the fifth, or that which faced the entrance. This trilithon fell down on the 3rd of January, 1797, and the stones now encumber a flat stone, of about fifteen feet in length, which lay at their base.

Lastly, there appears to have been a fourth enclosure, formed originally, as Stukeley thinks, by nineteen stones, but only eleven now remain, entire or in fragments. These seem also to have been arranged in the shape of a half oval, with the open part, as in the case of the other, to the north-east. Although greatly inferior in height to those last described, they are still taller than those of the second circle. The most perfect, according to Sir R. C. Hoare, is seven and a half feet high, and twenty-three inches wide at the base, and twelve at the top. Like the second circle, this row has never had any imposts.

Such is Stonehenge, as it still subsists; and in so far as the original design of the fabric can be traced from the portions of it which the waste of time has left, the appropriateness of the name, Stonehenge, which is Saxon, and signifies "the Hanging Stones," will be obvious enough from the account that has been given. But little doubt can be entertained that it is not a Saxon building. It is unquestionably the work of an age long preceding that in which the Saxons first obtained a footing in this island. Inigo Jones, in a posthumous work, has actually maintained the theory that it is a Roman erection—a temple of the god *Cælus*, he conceives. A more absurd notion never was taken up. It would be much more rational to say that it was a work of nature;—a piece of architecture which had grown up where it stands, like the Giant's Causeway, or the Cave at Staffa. Stonehenge certainly resembles these structures quite as much as it does any thing the Romans have left us. The old popular tradition, recorded by Giraldus Cambrensis and other chroniclers, was, that the stones had been brought to the place where they now are, and elevated into the air as we see them, by the great magician Merlin, from the Curragh of Kildare in Ireland. It is not impossible that the design may have been taken from a similar building on that great plain, where Giraldus Cambrensis says, that an erection like Stonehenge was actually to be seen in his day. He calls Stonehenge, *Chorea Gigantium*, the Giants' Dance. Among modern speculators, some,

also, have attributed it to the Danes; but, since the publication of Stukeley's book (1740), opinion has almost universally been made up in favour of his theory, that it is a Druidical temple of the ancient Britons. Of late, certain other hypotheses have been engrafted upon this general idea:—as, for instance, that it had an astronomical as well as a religious aim; but these are to be considered as rather developments than refutations of Stukeley's view. Astronomy was the soul of the Druidical religion, and may very possibly have influenced the form of the temples as well as the worship. But there is little chance that we shall be able, in the present day, to recover any correct knowledge of the principles of this astronomical architecture.

One difficulty in the subject of Stonehenge has given rise to much discussion;—From whence were the stones brought? According to Sir R. C. Hoare, in his magnificent work entitled the 'Ancient History of South Wiltshire,' (fol. Lon. 1812) the stones forming the outer circle and the fine trilithons of the grand oval are of the same kind with those which are found in different parts of the surface of the Wiltshire Downs, and are there called *Sarsen Stones*, by which are meant stones taken from the native quarry in their rude state. They are a fine-grained species of silicious sandstone. Those forming the smaller circle, and the smaller oval again, are quite different. Some are an aggregate of quartz, feldspar, chlorite, and hornblende; one is a silicious schist; others are hornstone, intermixed with small specks of feldspar and pyrites. What is called the altar, being the stone now covered by the central trilithon of the grand oval, is a micaceous fine-grained sandstone. From these circumstances, Mr. Cunningham first very ingeniously started the conjecture that the original temple had probably consisted only of the great circle and the great oval, and that the two other rows were subsequent additions. In a late publication, entitled 'Hermes Britannicus,' (1828,) the Rev. W. L. Bowles has taken up this idea, but has given it a new form, by supposing the lower stones to have formed the original temple, and the taller to have been afterwards added. He has connected this view with some very curious speculations as to the religion of the ancient inhabitants of Britain; for which, however, we must refer the reader to his work.

Our wood-cut represents Stonehenge as seen from the south.

PROFESSIONS AND TRADES OF THE METROPOLIS.

THE table given in No. 118 of the 'Penny Magazine' distinguished the employments in which about 45,400 establishments are engaged. Those were employments connected with the larger objects of production and the more important professions. The present list adds 7000 to this amount; and there are about 2300 engaged in 218 employments which our limits have not allowed us to include in either list. Thus a total is obtained of about 54,700 establishments, considered "respectable" by the compilers of the lists we have employed.

Since the preceding list went to press, we have been informed that there are not less than 800 "artists" practising in the metropolis; but the discrepancy may be accounted for by the fact, that a large proportion of artists prefer the light and air of the suburbs to the close streets. Generally, we would be understood as claiming no more for the tables than that they exhibit approximations, and afford materials for comparison.

ANATOMICAL Mechanists	3
Anchor-smiths and Chain-cable manufacturers	21
Animal Preservers	4
Archery Warehouses	11

Army Clothiers (20), and (16) Cap and Ac-	
coutrement Makers	36
Artificial Eyes (3), and Limb Makers	9
Artists in Fireworks	9
Aurists	4
Ball and Rout Furnishers	3
Basket Makers	54
Bellows Makers	10
Birmingham and Sheffield Warehouses	41
Blacking Manufacturers	25
Black-lead Pencil Manufacturers	18
Blind (window) Makers	98
Brace and Belt Makers	16
Brass and Copper Manufacturers	157
Breeches Makers	33
Button Manufacturers and Warehouses	33
Calico-Glazers (6), and Calico and Furniture	
Printers	39
Cap Makers, (fur, cloth, and leather)	16
Card Makers	15
Carmen	70
Carpet and Rug Manufacturers and Ware-	
houses	109
Chair and Sofa Manufacturers	89
Chasers	30
Child-bed Linen Warehouses	63
Clothiers and Clothes Salesmen	110
Colour Manufacturers and Dealers (exclusive	
of those who are Oilmen also)	79
Comb Makers	39
Composition Ornament Manufacturers	18
Cork Manufacturers	52
Cuppers	38
Curriers, Leather Cutters, &c.	459
Dressing Case and Desk Makers	64
Drysalers	58
Egg Merchants	25
Engine Makers, (Fire 5, Steam 2, Hydraulic 1)	
Farriers	95
Feather Manufacturers (11 Bed)	84
Filter Manufacturers	7
Fishing Rod and Tackle Manufacturers	24
Flattening Mills	7
Floor Cloth Manufacturers	33
French Horn and Trumpet Manufacturers	10
Fringe, Bedlace, Trimming, &c., Manufacturers	92
Furriers	151
Gilders (Water and Book-edge)	30
Ginger Beer (13), Soda and Mineral Water	
Manufacturers (20)	33
Glass Manufacturers, Warehouses, and Cutters	174
Globe Makers	4
Glovers	76
Gold Cutters, Gold and Silver Beaters, Re-	
finers, &c.	117
Granary Keepers	9
Gunpowder Makers	9
Hair Manufacturers	57
Ham and Tongue Dealers	66
Harness Makers	46
Harp Makers	12
Herbalists	21
Importers (of Beads 5, Carpets 1, Cigars 15,	
Cocoa-nuts 2, Foreign Clocks and Watches	
4, Foreign Fancy Goods 27, Foreign Silk	
Goods 15, Geneva Watch Tools and Ma-	
terials 2, Glass Shades 1, Leeches 5, Mi-	
neral Waters 1, Shawls 1, Tobacco-pipes	
and Snuff boxes 2, Toys 7, Wines 23)	111
Lamp Manufactories and Warehouses	78
Lapidaries	30
Last, Boot-tree, and Batten Makers	59
Lead Manufacturers	25
Lightermen	99
Locksmiths and Bell-hangers	83
Looking-glass and Picture Frame Makers	32
Mangle and Press Makers	14
Map and Chart Publishers and Sellers	19
Marine Stores, and Rag and Phial Dealers	73
Mast, Oak and Block Makers	45
Medallists	3
Milkers	17
Mineralogists	2
Modellers	11
Needle and Pin Makers	32
Oculists	3
Outfitting and Ready-made Linen Ware-	
houses	63
Paper Makers	9
Paper Marblers and Fancy Paper Makers	21
Paviors	12

Percussion Cap Manufacturers	2
Perfumers	84
Powterers	55
Plaster of Paris Manufacturers	6
Plate (British) Manufacturers	3
Potato Dealers	181
Potters	14
Printing Press Makers	5
Print-sellers and Publishers	62
Pump Makers	11
Roman Cement Manufacturers	23
Rope, Line and Twine Manufacturers	70
Sail and Sail Cloth Makers and Warehouses	84
Saw Mills	14
Scagliola Manufacturers	5
Scale Makers	40
Ship Breakers 9, Carvers 6, Chandlers 40,	
Hearth and Tank Makers 4, Joiners 8,	
Owners 30, Smiths 11	108
Short-hand Writers	15
Shop-sellers	83
Soap Manufacturers	40
Spectacle Makers	16
Statuaries and Masons	161
Steam-engine Boiler Manufacturers	8
Sugar Refiners	64
Surgeons' Instrument Makers	54
Tanners	50
Timber and Deal Yards	21
Tin-plate Workers	204
Tool Makers and Warehouses	100
Toymen	134
Tripemen	37
Trunk Makers	93
Truss Makers	33
Turners	170
Umbrella and Parasol Makers	109
Varnish Manufacturers	31
Veterinary Surgeons	55
Violin and Violincello Makers	15
Warehouses (16 French)	137
Wharfingers	90
Wheelwrights	155
Whip Makers	33
Wig Makers	9
Wire Drawers, Workers, &c.	79
Wool Staplers	21
Worsted Manufacturers	20
Zinc Workers	7

AUSCULTATION*.

FROM the earliest ages physicians have known that disease in the cavity of the chest might occasionally be detected by the ear; but it was not till about seventy years ago that any express rules were laid down upon this subject. The merit of being the first methodical auscultator is due to Dr. Avenbrugger, a physician of Vienna, who published a short treatise on this subject in the year 1761. It is written in Latin, and is entitled, 'A New Discovery of the Art of Detecting Diseases in the Interior of the Chest by Percussion.' When the chest of the patient is struck by the fingers of the physician, if it is healthy, it gives a sound, says Dr. Avenbrugger, like that of a drum covered with cloth; whereas, if it is diseased, the sound produced is as if solid flesh had been struck.

In performing this examination, the chest of the patient must be covered with his shirt, or else the fingers of the physician with a glove, which must not be made of glossy leather; for if the bare chest is struck with the bare hand, the concussion of smooth surfaces produces an external sound which obscures the internal one. The following eight general rules are clear, correct, and well-expressed:—

1. The duller the sound is over the chest, and the nearer it approaches the sound of solid flesh, the greater is the disease.
2. The larger the space over which this dullness extends, the greater is the disease.

* This word signifies listening; but, in medicine, means the art of distinguishing diseases by the sense of hearing.

3. It is worse for the left side to be affected than the right.

4. It is less dangerous that the front and upper part of the chest (viz., from the collar-bone to the fourth rib) should be destitute of sound than the lower part.

5. It is more dangerous that the sound be absent in the posterior part of the thorax than in the front and upper part.

[This rule is evidently the same as the last, in different words.]

6. If one side of the chest is entirely destitute of sound, it is a fatal sign.

7. If the sternum (viz., the front and central part of the chest) is without sound, it is a fatal sign.

8. If the place which the heart occupies gives the sound of solid flesh over a great space, it is a fatal sign.

The reason of the last rule is this:—the heart, from its solidity, produces a loss of resonance over the space which it occupies; and, therefore, a great extension of this dulness shows a great enlargement of the heart,—an incurable disease.

When there is fluid in the chest there will be a loss of resonance; just as there is when the lungs, having lost their natural spongy texture, have become solid,—a disease which Avenbrugger calls *schirrus* of the lungs; but which is now termed *hepatization*, from *hepar*, the Greek word for liver. Percussion, however, will almost always succeed in determining whether the loss of sound is produced by the presence of a fluid or by hepatization; for, in the former case, the patient, by altering his attitude, will change the position of the fluid, and thus transfer the dulness of sound from one spot to another; but this ingenious method of discriminating the nature of the disease will, of course, fail in those rare cases in which one side of the chest is entirely filled with fluid.

Dr. Avenbrugger's little manual is not confined solely to the signs afforded by percussion; in many instances he gives a succinct but masterly outline of the general symptoms by which various diseases of the chest may be recognized. In offering his work, the fruit of seven years' observation, to physicians, he remarks, that, in treating diseases of the chest, the sound obtained by percussion is inferior in importance only to the pulse and respiration. Avenbrugger's work has never been translated into English; but there is a French version of it by Corvisart, in which the brief axioms of the German physician are illustrated, and almost overwhelmed, by a most copious commentary. This translation, however, is a valuable work, and an additional step in the art of auscultation. With this exception, but little advance seems to have been made from Avenbrugger to Laennec, the distinguished inventor of the stethoscope. This is a tube, usually made of wood, one end of which is applied to the chest of the patient, and the other to the ear of the physician. By this contrivance, the sound of the patient's respiration, as well as voice, is transmitted in the most distinct manner, and the minutest variations from the healthy standard can be distinguished by a practised ear. In children, for instance, the sound produced by respiration is louder and more acute than in adults; but this acute breathing often occurs in grown-up persons, when, one lung being diseased, the other is forced to do work for both. It is known among stethoscopists by the name of *puerile* respiration. Or, let us suppose a patient in an advanced stage of consumption, in whose lungs cavities have been formed by the suppurating of tubercles; if the stethoscope be applied to the chest of such a patient when he is speaking, his voice will be heard echoing from the cavities in his lungs: this morbid resonance is called *pectoriloquy*. Such are a few of the more interesting points, depending on auscultation, a subject on which large volumes

not only might be, but have been, written. In comparing the methods of Avenbrugger and Laennec, we must acknowledge that, if percussion is more simple, the stethoscope affords more information; but then this advantage is perhaps counterbalanced by the extreme difficulty of its application; a difficulty so great as not always to be surmounted by years of study. It is for this cause that we have touched but slightly on the use of the stethoscope, or chest-viewer, as we thought it needless to perplex general readers with refined distinctions which harass the scientific, and even left Laennec himself sometimes at fault.

We touch upon subjects of this nature principally to show by what slow steps the knowledge of diseases has advanced,—what slight symptoms indicate healthy or deranged functions,—how delicate are the tests which they present, even to the most practised physician,—and how contemptible, therefore, are those pretensions, which would make the medical science consist in a few empirical rules, applied with little observation, and less philosophy.

Persecution of the Jews.—Among the details of wrong and outrage, by which the study of history is frequently rendered painful, few are more revolting than the massacres and persecutions of the Jews by the Anglo-Norman kings. Besides the more general and shocking transactions of this character which historians record, many old documents exhibit evidences of local persecution which are as curious as they are revolting. In illustration may be quoted the order issued, in 1255, by Henry III. to the sheriff of Norfolk and Suffolk, who is commanded "to cause proclamation to be made in the city of Norwich, and in all the good towns of those counties, that no Christian woman shall henceforth serve the Jews, to nurse their young children, or in any other office." Thirty-five years after, all the Jews in England, to the number of 15,000, were expelled the country, and all their real estates confiscated, by a resolution extracted from the parliament by the clamours of the people.

Frugal Fare of the Swedish Peasants, and their Affection for their Horses.—"While changing horses, we were not a little entertained at the curious group formed by the peasants and their steeds breakfasting together; both cordially partaking of a large, hard, rye-cake. This is their constant food on the road; and, indeed, throughout Sweden it forms the chief, and frequently the only, subsistence of the peasantry. Before setting out on a journey, a few of these cakes are strung together, which serve for the support of themselves and their horses. As the latter may sometimes belong to three or even four proprietors, it is highly amusing, on the road, to observe the frequent altercations between them, each endeavouring to spare his own horse; and, while running by the side of your carriage, using his utmost endeavours to persuade the driver that it is an animal of such qualities as not to have the least occasion for the whip; at the same time, perhaps, giving him a hint, that, from what he knows of his neighbour's beast, the lash would be well applied there. The curious scenes that in consequence arise form not the least entertaining part of the journey. Their affection for their horses is so great, that I have actually seen them shed tears when they have been driven beyond their strength. Indeed, the expedition with which these little animals proceed is surprising when we consider the smallness of their size, which hardly exceeds that of a pony. Seven or eight miles within the hour are accomplished by them with ease; and the roads throughout Sweden being universally good, they frequently do not relax from a gallop until they have reached the post-house." —*Sir Arthur de Capell Brooke's Travels in Sweden, &c.*

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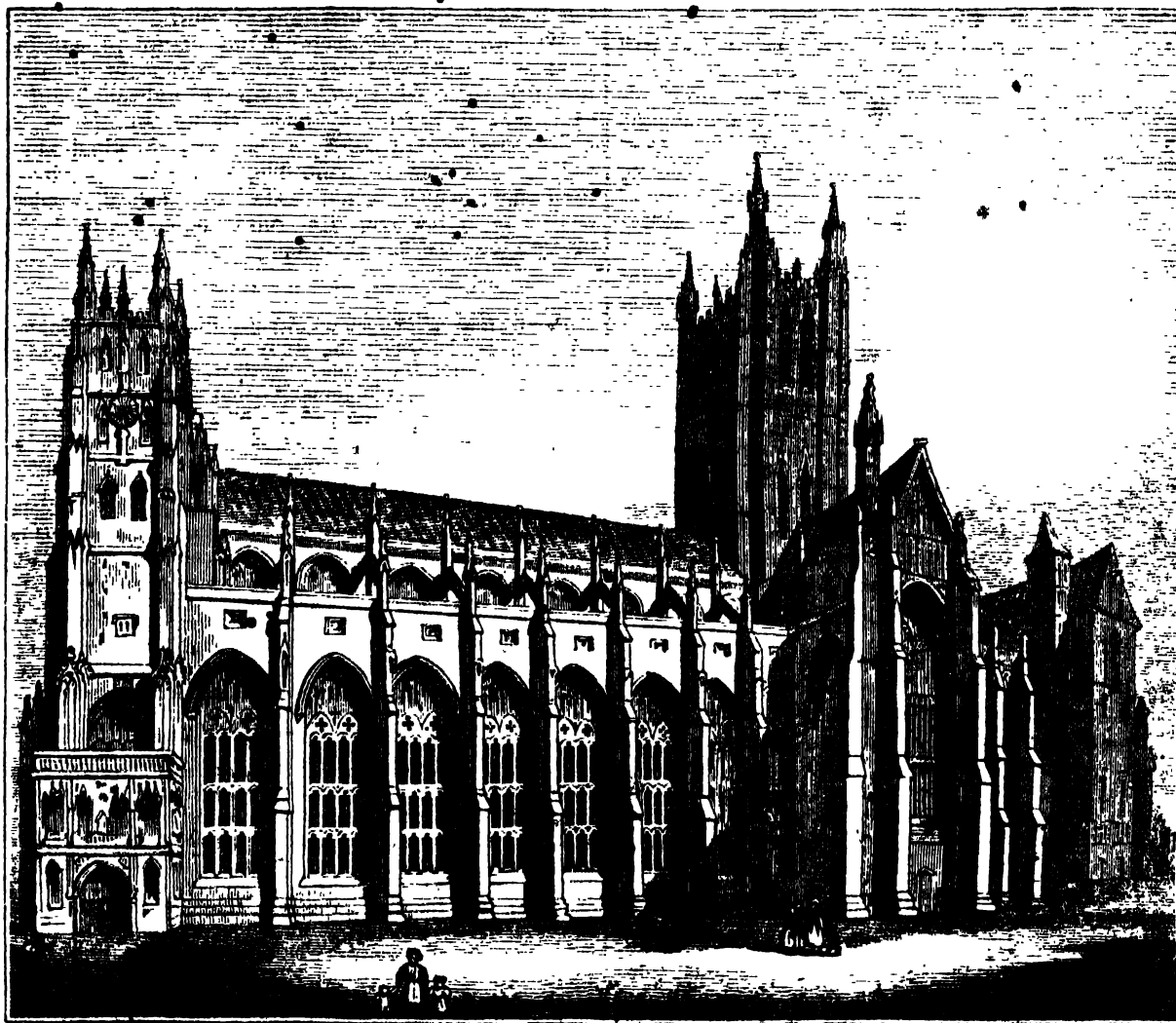
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CANTERBURY.



[Canterbury Cathedral, South Side.]

WE have already (see No. 106) given a general description of Canterbury; and the present Supplement will be devoted to a review of some of the most remarkable among the particular objects of interest in the place. The buildings of note—still standing or now in ruins—in the city and its neighbourhood, are almost all connected with its ecclesiastical establishments. We shall begin with the most distinguished,—the Cathedral, otherwise called Christ Church,—which, as mentioned in our former notice, stands in the north-east quarter of the town.

It is certain that, during the Roman domination in Great Britain, Christianity had been generally established in the southern parts of the island, which were inhabited by a mixed population of Britons and Romans. Many of the Romans who came over to colonize the country after its conquest in the reign of the Emperor Claudius were, no doubt, Christians; and the general conversion of the natives within the subjugated territory most probably took place in the first or second century. It is most likely, also, that it was in part effected by the agency of missionaries who visited the island ex-

pressly for that purpose; although but little confidence can be placed in the story told by the old monkish historians about the preachers that were sent over by Pope Eleutherius to a British king of the name of Lucius, who is said to have flourished before the close of the second century, and to have been the first prince of his nation who received the new faith. No doubt can be entertained that churches were built in many parts of the country in the course of the three centuries during which it enjoyed peace and security under the Roman protection. Whatever buildings, or remains of buildings, are now found, which bear the impress of Christian civilization, and cannot be assigned to a date subsequent to the establishment of the Saxons, must have been erected during this era of tranquillity, when letters and the arts probably flourished to a degree which they scarcely again attained in the course of the next thousand years. The Saxon invasion swept away all this, by rolling over the country a tide not only of savage ignorance but of war and slaughter, which desolated a great part of the island for a century and a half. The reign of anything like civilization did not

recommence till towards the close of the sixth century. About this time, Ethelbert, king of Kent, married Bertha, the daughter of the French king Charibert; and out of this event arose the first introduction of Christianity into Saxon Britain. It is supposed to have been on the application of Bertha, who was herself a convert, and a lady of great piety and virtue, that Pope Gregory I. was induced to send over from Rome the celebrated Augustine and his forty followers, who arrived in the Isle of Thanet in the year 597, and were soon after permitted by Ethelbert to take up their residence in Canterbury, the capital of his dominions.

Bede tells us that there was already a building in the eastern quarter of the city, which long before had been used as a Christian church; and that this edifice was given by the king, after his conversion, to Augustine and his companions. There is every reason to believe that the church in question stood on the site of the present cathedral. It may have been built four or five centuries before, and must, at the least, have been two or three hundred years old. Having fallen into decay, it was enlarged and repaired under the direction of Augustine, who had by this time been consecrated Archbishop of Canterbury; and who, having dedicated it to Christ, made it his cathedral. It hence derives its proper designation of Christ Church.

The building thus founded, or rather restored and amplified, by Augustine, subsisted till the year 938, by which time, however, partly in consequence of a recent attack of the Danes, it had become little better than a ruin. The walls, we are told, were uneven, and in some places were broken down, and the roof was in so threatening a state that the church could not be safely entered. Odo, who was then archbishop, bestowed considerable cost in the reparation of the fabric; but, in 1011, the Danes, in a new attack, burned down the roof which he had erected, and left only the walls standing. After Canute came to the throne, however, in 1017, its restoration was once more effected, the king having, it is said, contributed munificently to the expense. But the new disturbances, which arose after his decease, and especially the neglect and dilapidation to which it was exposed during the unavailing resistance of the Saxon Archbishop Stigand to the Norman Conqueror, had again reduced the structure to such a state, when Lanfranc succeeded to the see in 1070, that this prelate determined to rebuild it almost from the foundation. There is reason to believe, however, that even in this, the most complete re-edification which the church had yet sustained, the ancient walls were not entirely thrown down.

Lanfranc lived to complete his design so far as that the cathedral in his time was once more rendered fit for the services of religion, and presented the appearance of a finished building. Considerable additions were made to it, however, by Anselm and others of his successors; and even some parts which Lanfranc had built are recorded to have been taken down not long after his death, and re-erected in a different style. Conrad, a prior of the adjoining monastery, in particular, made such improvements on the choir, that it is stated to have been for a long time after generally known by his name.

But, on the 5th of September, 1174, an accidental fire, which commenced in some houses on the south side of the church, and was carried by a high wind towards the sacred building, having seized upon the roof, soon reduced the whole once more to the bare walls. "The leads," says the old chronicler, Gervase, who was a monk of Canterbury, and flourished in the thirteenth century, "were melted, and the timber-work and painted ceiling all on fire fell down into the choir, where the stalls of the monks added fresh fuel in abundance." He also speaks of the walls, and

especially the pillars, having been much scorched and injured; but it does not appear that they were actually thrown down by the violence of the flames. A great sensation was excited by this calamity, not only throughout England, but the whole of Christendom. The murder, or, as it was deemed, the martyrdom, of the famous Thomas à Becket, which took place in the cathedral of Canterbury on the 28th of December, 1170, had given an extraordinary sanctity to the building, and attracted to it crowds of pilgrims from every country of Europe. The celebrity and reverential estimation which it had thus acquired soon made the funds necessary for its restoration pour in abundantly. The most distinguished personages of the age eagerly offered their aid—many bringing their oblations in person. The king, Henry II., himself contributed largely. "In 1179," says Mr. Batteley in his additions to 'Somner's Antiquities of Canterbury,' "Louis VII., king of France, landed at Dover, where our king expected his arrival. On the 23rd of August these two kings came to Canterbury, with a great train of nobility of both nations, and were received by the archbishop and his comprovers, the prior and convent, with great honour and unspeakable joy. The oblations of gold and silver made by the French were incredible. The king came in manner and habit of a pilgrim—was conducted to the tomb of St. Thomas in solemn procession—where he offered his cup of gold and a royal precious stone, with a yearly rental of 100 muids (hogsheads) of wine, for ever, to the convent, confirming his grant by royal charter, under his seal, delivered in form."

The rebuilding of the cathedral was commenced soon after the fire, and, the means being thus liberally supplied, was carried on for some years with great spirit. The direction of the work was entrusted to a French architect, William of Sens, who, however, only superintended it for the first four years, having then received an accidental injury which obliged him to relinquish his office. He was succeeded by an Englishman. In 1183, however, the stream of offerings having probably somewhat diminished, the operations were suspended by the monks, on the pretence that their funds were exhausted. The expedient had the desired effect. Contributions to the pious work poured in immediately in almost unprecedented abundance; and the receivers were enabled not only to complete their original design, but to add to it new features of magnificence and splendour. The body of the cathedral soon stood once more in a finished state; but many additions and alterations were made long after the main part of the work had been thus accomplished. In fact, the building might be said to be still only in progress when the Reformation broke out, and the king's mandate, on the dissolution of the religious houses, put a stop to its further decoration or enlargement, and left it in all material respects in the state in which we now see it.

From this detail it appears that the present cathedral stands mainly on the same foundation with the ancient British church which Augustine found in Canterbury on his arrival at the end of the sixth century, nor is it altogether impossible that some portion of that primitive edifice may still remain in the pile as it now exists. It is acknowledged on all hands that part of Archbishop Lanfranc's cathedral is still standing; and the vaults under the choir appear to be of a style of architecture anterior at any rate to the Norman Conquest.

The cathedral of Canterbury is built in the usual form of a cross, having however, two transepts. Buttresses rising into pinnacles are ranged along the walls both of the nave and the transepts; and a square tower of great beauty ascends from the intersection of the western transept and the nave. Two other towers also crown the extremities of the west front; that to the north, which had been long in a ruinous state, and

the upper part of which was removed many years ago, was taken down the year before last from the foundation, and is now being restored.

The cathedral of Canterbury is very spacious. The following are its principal dimensions:—the length of the whole building from east to west, measured in the interior, is 514 feet; of which the choir occupies not less than 180 feet, being an extent unequalled by that of any other choir in England. The breadth of the nave with its side aisles is 71 feet; and its height 80 feet. The larger transept is 154, the smaller 124 feet, in length from north to south. The height of the great central tower, called the Bell-Harry steeple, is 235 feet; and that of the Oxford and Arundel steeples, at the north and south extremities of the west front, about 130 feet.

It is remarked of this Cathedral, by Mr. Hasted, in his 'History of the County of Kent,' that, "notwithstanding the different ages in which the several parts of it have been built, and the various kinds of architecture singular to each,—no one part corresponding with that adjoining to it,—yet there seems nothing unsightly or disagreeable in the view of it; on the contrary, the whole together has a most venerable and pleasing effect." This observation is made in reference to the external aspect of the building, which, however, with the exception of the fine central tower, is not distinguished by any very extraordinary beauty or magnificence. The west front, so highly decorated in some of our other cathedrals, is here extremely plain. The interior, however, from the vast extent of the perspective,—now, since the removal of the organ to a side gallery, embracing the whole length of the nave and choir,—and from the unusual elevation of the ceiling, has a very grand effect. The ranges of tall windows on each side pour in the light in abundant streams between the lofty arches, so that, as the visiter moves forward, every thing around opens upon him in its full dimensions. The view upward, from under the great central tower, which is open to the height of above 200 feet, and lighted by successive tiers of windows all around, may well be conceived to be exceedingly imposing. Mr. Gostling, in his 'Walk in and about the City of Canterbury,' relates the following instance of the admiration which he once saw excited by the proportions of this tower:—"Many years ago, I had the pleasure of taking a walk with an eminent builder in this part of our cathedral. The person was Mr. Strong, son of him who was master-mason at St. Paul's in London, during the whole construction of that justly admired fabric; brought up under his father to the same business, and his successor in the works of the Royal Hospital at Greenwich. He could hardly be prejudiced in favour of the Gothic taste, and was undoubtedly a competent judge how strength and beauty were properly considered in works of such magnificence. When he came to make his observations here, and especially in the upper works, I was presently convinced that an artist sees with other eyes than they do who are not such; and the eagerness of every step he took in examining and noting down the proportions of what he saw, with his passionate exclamation at my not being then able to satisfy him who was the designer of that stately tower,—in one of the galleries whereof we were standing and admiring it,—showed sufficiently how worthy he thought this forgotten architect of all the honour that could be paid to so exalted a genius." This tower was built about the end of the fifteenth century.

It would require far more space than we can afford to describe at length all the different parts and ornaments of the cathedral which are interesting either from their merit as productions of art, or from the historical associations with which they are connected. We can

only mention shortly a few of the more remarkable. Among these is the ancient stone-screen at the entrance to the choir, the date of which is supposed to be the early part of the fourteenth century. It presents a rich display of Gothic sculpture; and among the figures by which it is adorned are six kings wearing crowns, and holding in their hands five of them globes, and the sixth a church. The ancient stalls of the choir were removed in 1734, when the present were substituted in their place. Some parts of the ornamental work are supposed to have been executed by the celebrated Gibbons, by whom the admirable carvings of the fittings in the choir of St. Paul's were cut. Behind the choir, instead of the Lady Chapel, or chapel dedicated to the Virgin, which usually occupies this place in other cathedrals, is the chapel of the Holy Trinity, erected about 1184 in honour of St. Thomas à Becket, and long the most attractive part of the church, as containing his shrine. "This shrine," says Stow, "was builded about a man's height, all of stone, then upwards of timber plain, within which was a chest of iron, containing the bones of Thomas Becket, scull and all, with the wound of his death, and the piece cut out of his scull laid in the same wound. The timber-work of this shrine, on the outside, was covered with plates of gold, damasked with gold wire, which ground of gold was again covered with jewels of gold, as rings, ten or twelve cramped with gold wire into the said ground of gold, many of those rings having stones in them, brooches, images, angels, precious stones, and great pearls." Hither, in 1220, the body of the Saint was removed from the crypt underground, where it had till then been deposited; the Pope's legate, the Archbishops of Canterbury and Rheims, and divers other bishops and abbots, bearing the coffin on their shoulders, amidst a display of all that was most gorgeous and imposing in the pomp and splendours of the ancient ritual. The king himself, Henry III., was present. The expenditure of Stephen Langton, the archbishop, is said to have been so profuse on this occasion, that he left a debt upon the revenues of the see which was not discharged till the time of his fourth successor. The cost, however, was in time amply repaid. Becket's shrine continued to draw an immense revenue of gifts to the church as long as the old religion lasted. Erasmus, who was admitted to a sight of the treasure deposited in the sacred chamber a short time before the Reformation, tells us, that under a coffin of wood, inclosing another of gold, which was drawn up from its place by ropes and pulleys, beheld an amount of riches the value of which he could not estimate. Gold, he says, was the meanest thing to be seen; the whole place shone and glittered with the rarest and most precious jewels, most of which were of an extraordinary size, some being larger than the of a goose. At the dissolution, Henry VIII. seized upon all this wealth. Stow says, that "the spoil in gold and precious stones filled two great chests, one of which six or seven strong men could do no more than convey out of the church at once." One of the precious stones, called the Regal of France, which had been presented by Louis VII. on his visit to the church, as mentioned above, in 1179, he set and wore as a thumb-ring. At the same time he ordered the remains of Becket to be burned, and the ashes scattered to the winds. The bones of St. Dunstan and St. Anselm, which were also preserved in the cathedral of Canterbury, were probably treated in the same way. The only trace of the shrine of the martyr that now remains is afforded by the pavement around the spot where it stood, which is worn down by the knees of the crowds of worshippers that, during more than three centuries, offered here their oblations and their prayers. The spot, we may here mention, which is pointed out as that on which Becket was assassinated, is in the northern portion of the

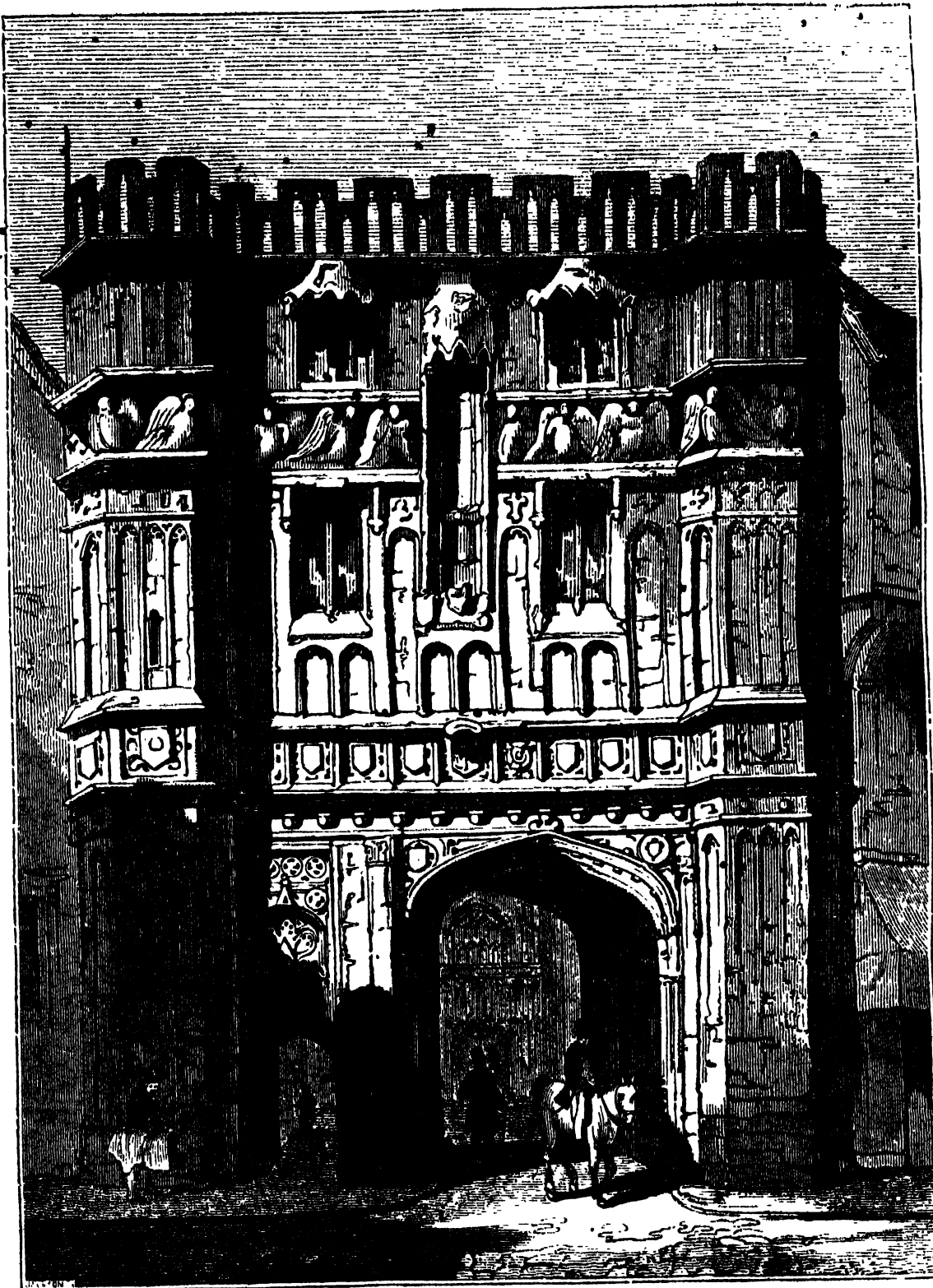


[St. Augustine's Gate.]

western transept. That part of the church is on this account called the Martyrdom. At the east end of the chapel of the Holy Trinity is another of a circular form, called Becket's Crown, probably from the manner in which the ribs of the arched roof meet in the centre. It appears not to have been finished at the time of the Reformation; and the works being then suspended, it remained in that state till about the middle of the last century, when it was completed at the expense of a private citizen.

In the Chapel of the Holy Trinity stands the ancient patriarchal chair in which the archbishops are enthroned, and which, according to tradition, was the regal seat of the Saxon kings of Kent. It is formed of three pieces of grey marble, cut in pannels, the under part being solid, like that of a seat cut out of a rock. In this

chapel also, among other monuments, is that of the Black Prince, still in wonderful preservation after the lapse of nearly four centuries and a half. On a handsome sarcophagus of grey marble, richly sculptured with coats of arms and other ornaments, lies the figure of the warrior in copper gilt, with his face displayed, but the rest of his body cased in armour. The sword, which had at one time been hung by his girdle, now lies loose by his side. Covering the whole is a wooden embattled canopy, and suspended over this are some of the actual weapons and other armour worn by the Prince:—his gauntlets, his helmet and crest, a surcoat of velvet elaborately adorned with gilding and embroidery, and the scabbard of his dagger, displaying the arms of England and France. It is commonly said that the weapon itself was taken away by Oliver



[Cathedral Precinct Gateway.]

Cromwell; but this tradition has probably arisen merely from its having disappeared in the civil confusions of Cromwell's time. The shield of the Prince hangs on a pillar near the head of the tomb. Among the other tombs in this the most sacred part of the church, are that of Henry IV. and his second wife Queen Jane of Navarre, and those of Archbishop Courtney, Cardinal Chatillon (of the Coligny family), and Cardinal Pole. In other parts of the church are the monuments of Archbishops Chichele, Bourchier, Walter, Peckham, Warham, Ludbury, and many other personages connected with it in ancient times.

A very curious part of the cathedral is what is called the Undercroft, being the crypt over which the choir is

raised. It is undoubtedly the most ancient part of the building; and as the architecture appears to be Saxon, it is supposed to have been part of the older church left standing by Lanfranc. The walls are perfectly destitute of ornament, and every thing presents the aspect of the most venerable antiquity. Of the pillars, some are round, others twisted, and neither in shafts nor capitals are there two of them alike. The circumference of most of the shafts is about four feet, and the height of shaft, plinth, and capital only six feet and a half. From these spring semi-circular arches, making a vaulted roof of the height of fourteen feet. The portion of this crypt under the west end of the choir was long in the possession of a congregation of Calvinists, which

originally consisted of refugees driven from the Netherlands by the persecutions of the Duke of Alva, in the reign of our Edward VI., and afterwards increased by a number of French Huguenots, who sought an asylum in this country on the revocation of the Edict of Nantes. They were principally silk-weavers; and their numbers were at one time very considerable, but they latterly greatly diminished. Their place of meeting for divine worship in the cathedral is said to have been granted to them by Queen Elizabeth.



[Capital of a Column in the Crypt.]

There still remain in several of the windows of the church some fine specimens of ancient painted glass; but the productions of this most fragile of the arts, with which it was formerly very richly adorned, were in great part mercilessly destroyed during the fanatic fury of the seventeenth century. A magnificent window in the northern wing of the western transept, in particular, suffered severely. The relation of its demolition has been given by the person who was himself most active in the work—an individual of the name of Richard Culmer (but more commonly called “Blue Dick”), who, on the recommendation of the Mayor of Canterbury, was appointed by the House of Commons one of the six preachers in the cathedral, after the abolition of episcopacy. This zealot writes, “The commissioners fell presently to work on the great idolatrous window, standing on the left hand as you go up into the choir; for which window some affirm many thousand pounds have been offered by outlandish papists. In that window was now the picture of God the Father, and of Christ, besides a large crucifix, and the picture of the Holy Ghost in the form of a dove, and of the twelve apostles; and in that window were seven large pictures of the Virgin Mary, in seven several glorious appearances; as of the angels lifting her into heaven, and the sun, moon, and stars under her feet; and every picture had an inscription under it, beginning with *Gaude, Maria*; as *Gaude, Maria, Sponsa Dei*; that is, *Rejoice, Mary, thou Spouse of God*. There were in this window many other pictures of popish saints, as of St. George, &c.; but their prime cathedral saint, Archbishop Becket, was most rarely pictured in that window, in full proportion, with cope, rochet, mitre, crosier, and his pontificalibus. And in the foot of that huge window was a title, intimating that window to be dedicated to the Virgin Mary.” In afterwards describing his own share in the work, he lets out that he was not a little vain of the performance, although he withholds his name:—“A minister,” he says, “was on the top of the city ladder, near sixty steps high, with a whole pike in his

hand, rattling down proud Becket's glassy bones, when others then present would not venture so high.” The modes in which self-admiration exhibits itself are very various.

But we must now leave the cathedral, and proceed to the other buildings which we have also to notice. Before quitting the quarter, however, in which the metropolitan church is situated, we must direct attention to the fine specimen of a kind of architecture in which our ancestors greatly delighted—the Precinct Gate—of the present appearance of which, worn and half obliterated by time, but still majestic, our wood-cut furnishes a faithful representation. It forms the principal entrance, that from the south-west corner, to the extensive court in which the cathedral stands, surrounded by the prebendal houses, the deanery, what was the archiepiscopal palace, and other buildings connected with the establishment of the church. It opens upon the ancient avenue from the High Street, called *Mercery Lane*, where, in the Chequer Inn, occupying more than half the west side, and extending a considerable way down the High Street, and in other large tenements adjoining, were formerly lodged many of the pilgrims who crowded hither from all parts to pay their devotions at the shrine of St. Thomas. The gate is correctly described by Somner, in his ‘History of the Cathedral,’ as “a very goodly, strong, and beautiful structure, and of excellent artifice.” From an inscription over the arch, now nearly illegible, it appears to have been built in the year 1517. Of the space within the precinct, a considerable part is occupied by the cemetery of the cathedral, and the remainder which is not covered by buildings is for the most part laid out in gardens. It may form about a fifth part of the whole city within the walls. Of the archbishop's palace, which stood on the west side, little is now remaining. The great court has been converted partly into gardens and partly into a timber-yard; and a private dwelling-house has been formed out of the porch of the great hall. There are a considerable number of private houses, and also of shops, within the precinct.

Several of the old city gates of Canterbury were venerable for their antiquity; but they have now, we believe, all been removed, with the exception of that called Westgate, at the north-west extremity of the High Street, over which is the city prison. At the opposite extremity of the same street was Ridinggate, crossing the road to Dover, near to which were two arches of Roman brick and architecture. At Worthgate, forming the termination of Castle Street, on the south-west, was another Roman arch; and there was another at Queensgate, leading out from the east side of the cathedral precinct.

Directly facing this last-mentioned entrance stands the very handsome structure of which we have given an engraving—the great gate of the now ruined monastery of St. Augustine. This monastery is commonly believed to have been originally founded by St. Augustine on ground granted to him by King Ethelbert, and to have been at first dedicated to St. Peter and St. Paul. It was St. Dunstan who, in the year 978, dedicated it anew to these apostles, and also to St. Augustine. Speaking of the two establishments of Christ Church and St. Augustine's, Lambard, in his ‘Perambulation of Kent,’ (1596) says, “The monks of the which places were as far removed from all mutual love and society, as the houses themselves were near linked together, either in regard of the time of their foundation, the order of their profession, or the place of their situation. And, therefore, in this part it might well be verified of them, which was wont to be commonly said, *Unicum arbustum non alit duos erithacos*;—One cherry-tree sufficeth not two jays. For indeed one whole city, nay rather one whole shire and country, could hardly

suffice the pride and ambitious avarice of such two religious synagogues; the which, as in all places they used to enrich themselves by the spoil of the laity, no place agreed they one with another; but, each seeking everywhere and by all ways to advance themselves, they moved continual and that most fierce and deadly war, for lands, privileges, relics, and such like vain worldly pre-eminences; insomuch as he that will observe it shall find that universally the chronicles of their own houses contain for the most part nothing else but suing for exemptions, procuring of relics, struggling for offices, wrangling for consecrations, and pleading for lands and possessions." In another place, having occasion to notice one of their early quarrels, he again returns to the subject:—"Thus you see how soon after the foundation these houses were at dissension, and for how small trifles they were ready to put on arms, and to move great and troublesome tragedies; neither do I find that ever they agreed after, but were evermore at continual brawling within themselves, either suing before the king or appealing to the pope; and that for matters of more stomach than importance; as, for example, whether the abbot of St. Augustine's should be consecrated or blessed in his own church or in the other's; whether he ought to ring his bells at service, before the other had rung theirs; whether he and his tenants owed suit to the bishop's court; and such like, wherein it cannot be doubted, but that they consumed inestimable treasure for maintaining of their most popish pride and wilfulness."

The small portion of the monastery which now remains adjoins the great gateway; but at the dissolution of the religious houses it was so extensive a building that Henry VIII. seized upon it as a palace for himself. It was afterwards granted to Cardinal Pole for life, by Queen Mary. On his decease it reverted to the crown; and, in 1573, Queen Elizabeth, having paid a visit to Canterbury, kept her court here.

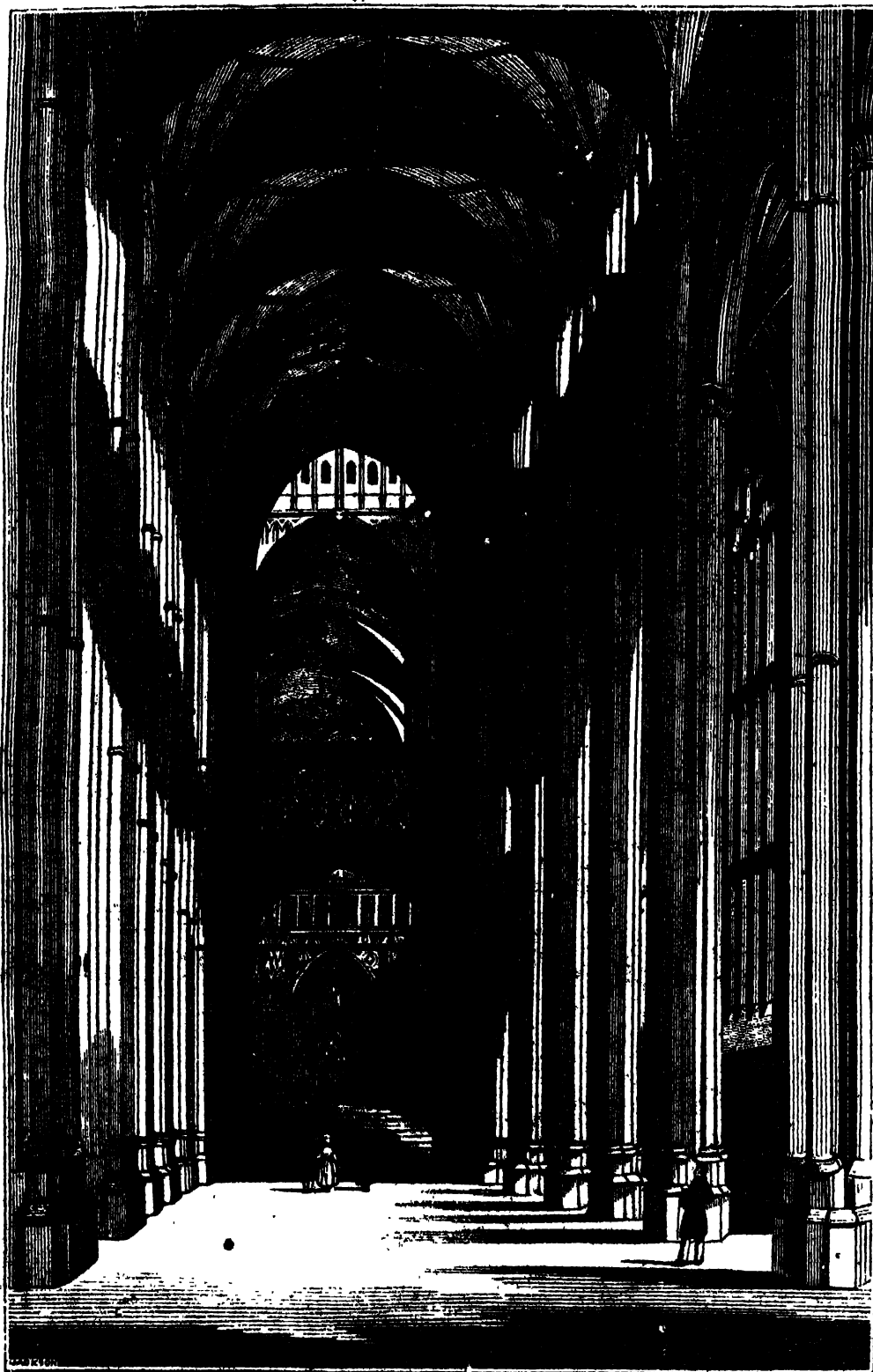
This building afterwards came into the possession of Lord Wotton, whose lady, after her husband's death, received Charles II. here on his way to London, at the Restoration. From her it is still commonly called Lady Wotton's Palace. The whole area comprehended within the inclosure of the monastery is about sixteen acres. In the fifth edition of Mr. Gostling's work, printed about thirty years ago, it is said—"The west front of the monastery extends about 250 feet, and the walls which inclose the whole precincts are standing; the great gate has buildings adjoining, which once had some handsome apartments, and particularly a bed-chamber, with a ceiling very curiously painted. The whole is now let to one who keeps a public-house; and, having plenty of excellent water, this apartment is converted to a brewhouse, the steam of which has miserably defaced that fine ceiling. The rest of the house he has fitted up for such customers as choose to spend their time there, having turned the great court-yard into a bowling-green, the fine chapel adjoining to the north side of the church into a five-court, with a skittle-ground near it; and the great room over the gate to a cock-pit." A short distance to the south-east of the gate stands a fragment known by the name of Ethelbert's Tower, which appears to have been a portion of the old abbey church. Not far from this was erected some years ago a City and County Hospital for the relief of the sick and lame poor. It stands near the middle of the area. To the east of that again is a small edifice of great antiquity, called St. Pancras' Chapel, the materials and architecture of which appear to be Roman, and which, according to tradition, was King Ethelbert's private chapel, in which he worshipped his ancestral gods before his conversion to Christianity. It is only thirty feet long by twenty-one in breadth.

But the most interesting monument of antiquity in Canterbury, and one of the most interesting in the kingdom, is the church of St. Martin, at some distance east from the chapel of St. Pancras, and beyond the precinct of the monastery. It stands on the side of a hill, rising on the left hand of the road leading to Deal, within half a mile of the city walls. The body of this church, which is still used for divine service, is built of Roman bricks; and the character of the architecture, although about that there has been much difference of opinion, has been thought to concur in indicating that its erection must have preceded the Saxon invasion. It is probable, at any rate, that it was built of the materials, and on the site, of a Roman edifice. Bede states that Augustine, on his arrival, found two ancient Christian churches at Canterbury, the one within the city in its eastern quarter, and the other at a short distance without the walls. The former was, no doubt, that which was eventually converted into the cathedral, and the other this church of St. Martin's; or, at least, the older building in the same place, out of the materials of which the present church was constructed. Here Queen Bertha is said to have had the services of religion performed to herself and her Christian attendants by her chaplain Luidhard, before the arrival of the Roman missionary; and it was here also that Augustine first performed mass, the other church within the city not having been opened till it was enlarged and repaired. A very ancient font still exists in St. Martin's Church, which is asserted to have been that used at the baptism of King Ethelbert.

Such are the principal memorials of its ancient greatness which are now left to this venerable ecclesiastical metropolis. Our limits have enabled us rather to note rapidly the chief points of interest presented by each than to describe any of them fully. A complete account of the cathedral alone would furnish matter for a large volume, and the subject has indeed occupied several large volumes. The early history of some others of these old buildings, again, carries us so far into the deepest night of the past, that, although there is little to relate, there is, on that very account, the more to conjecture, and the wider field for the imagination to expatiate in. In traversing the streets of Canterbury, we tread ground which has probably been deemed holy and famous since religion, in any form, first set up her temples in our island, or shed a mystic sanctity over hill and grove. There is reason to believe that the first Christian churches were usually, if not always, planted on those sites which superstition had previously consecrated in the hearts of the people. Besides, it can hardly be doubted that Canterbury was a Roman station; and if so, it was most likely a British town before the arrival of the Romans. The position of the place would point it out for a settlement on the first occupation of the country,—situated, especially, as it was, in the district that was probably first seized upon and peopled. The barbarian rites of Druidism, shadowing them with gloom and fear, may therefore have first given distinction to the spots on which now rise the Cathedral and the old church of St. Martin, monuments of the religion of purity, and peace, and hope. But if the vision of these primitive times is dim and uncertain, there was at least a long subsequent period during which Canterbury stood in celebrity and glory among the foremost of the cities of the earth. The history of a great part of the middle ages is so nearly a blank, or at least is marked by so few events that interest us in the present day, that we are apt to form a very inadequate conception of the length of that tract of time. The histories of Greece and Rome have been familiarized to our minds in such amplitude of detail, that we make a sufficient allowance for the space in the chronology

of the world over which they extend ; and for a similar reason we are still less given to contract within too narrow bounds our estimate of the period comprehended under what may be strictly called modern history. The Reformation, for instance, seems to us now a very old event ; and the time that has since elapsed, a long stretch of years. It appears like all the history we have, with the exception of a portion hardly worth attention, since the dissolution of the western empire. Yet that overlooked portion is in reality more than three times as long as the other, which we allow almost

exclusively to fill our imaginations. If we are, therefore, to take a full view of what Canterbury has been, we must carry our contemplation back over not only her three last centuries of comparative obscurity and decay, but her longer preceding period of renown and splendour. At the Reformation, the first thronging of the world's multitudes to the shrine of Becket was an older event than the Reformation is now ; and from the Reformation back to the arrival of St. Augustine, was three times as long a retrospect as it is from the present day to the Reformation.



[The Nave of Canterbury Cathedral.]

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THE MANGO TREE.



[Mango Tree.]

THE Mango-tree is a native of India and the south-western countries of Asia, and also grows abundantly in Brazil and the West Indies. It was introduced into Jamaica in the year 1782. It is a large tree, attaining the height of thirty or forty feet, with thick and wide-extended branches, and has been compared to the oak in its manner of growth. The leaves are scattered, stalked, simple, about a span long and an inch or two wide, wavy, entire, tapering at each end, veiny, smooth, and shining.

"The flowers are small and whitish, formed into pyramidal branches; the fruit has some resemblance to a short thick cucumber, and, on the average of the varieties, of which there are many, about the size of a goose's egg. At first the fruit is of a fine green colour, and in some of the varieties it continues so, while others become partly or wholly orange. When ripe, the mango emits a smell which is very pleasant, and the flavour of it then is exceedingly gratifying. Externally there is a thin

skin; and upon removing that, a pulp, which has some appearance of consistency, but which melts in the mouth with a cooling sweetness that can hardly be imagined by those who have not tasted that choicest of nature's delicacies. In the heart of the pulp there is a pretty large stone, resembling that of the peach, to which the pulp adheres firmly."—('Vegetable Substances,' p. 400.) In one variety of the mango, however, the stone does not exist.

The varieties of the mango are very numerous. Upwards of eighty are cultivated, and the size of the trees and the quality of the fruits vary according to the countries where they grow, and the circumstances of their situation. While the fruit, as a whole, is one of the most delicious of vegetable products, in some varieties it is so deteriorated as to have been, rather disparagingly perhaps, compared to a "mixture of tow and turpentine." The mangos of Asia are said to be much superior in size and flavour to those of America; and so

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highly are some of the finer trees prized in India, that guards are placed over them during the fruit season.—The largest variety is the “mango dodol,” the fruit of which weighs upwards of two pounds.

Travellers and residents in the East speak in warm terms of the mango, as by far the best fruit that is generally produced in those regions, and as that which is most uniformly grateful to an European palate. The fruit is variously used. Sometimes it is cut into slices and eaten either with or without wine, or macerated in wine; it is also candied, in order to its preservation; and it is frequently opened with a knife, and the middle filled up with fresh ginger, garlick, mustard, and salt, with oil or vinegar, that it may be eaten with rice, or after the manner of pickled olives.

The several parts of the tree are all applied to some use by the Hindoos. The wood is consecrated to the service of the dead; some employ it to construct the funeral piles with which the bodies are consumed, and others the coffins in which they are inclosed for burial. The stalks supply the place of areca or cuanga in the chewing of betel. From the flour of the dried kernels various kinds of food are prepared. To the leaves, flowers, bark, &c. many medicinal virtues are attributed, which it is not necessary to enumerate here.

In this country the mango plant is with difficulty preserved as an object of curiosity in the stove, where it sometimes blossoms in spring and autumn. As the ripe fruit is very perishable, the mango is never brought to this country in any other state than the green fruit pickled, from which no idea of the flavour can be formed. Even the vegetative power of the nut or kernel can with difficulty be preserved during the voyage from India, unless it be inclosed in wax. It is said to be the best course to have a quantity of the nuts set in tubs of earth in the country where the mango naturally grows; and, when the plants are grown a foot in height, to have them shipped, when a covering should be placed over them, to defend them from the water and spray of the sea, care being also taken not to give them too much water during the passage.

MUSIC FOR THE MANY.

[From a Correspondent.]

THE writer of these pages, in the course of a recent journey, was much interested by the following simple circumstances, which seemed to prove that a taste for a refined amusement, to the exclusion of drunken riot and pot-house bawling, was beginning to obtain among the people. He arrived, early in the evening, at a small village in Sussex, where he passed the night. Being tired of the solitude of the inn and the dullness of a country newspaper, he walked down the street of the village, and, in so doing, was brought to a pause before a small cottage, no ways distinguished from the other humble homesteads of the place, from which proceeded sounds of sweet music. The performance within consisted, not of voices, but instruments; and the piece playing was one of great pathos and beauty, and not devoid of musical difficulty. When it was finished, and the performers had rested a few seconds, they executed a German quartet of some pretensions in very good style. This was followed by variations on a popular air by Stephen Storace, which they played in excellent time, and with considerable elegance and expression. Several other pieces, chosen with equal good taste, succeeded this; and the stranger enjoyed a musical treat where he little expected one.

On making inquiries at the inn, he found that the performers to whom he had been listening were all young men of the village,—humble mechanics and agricultural labourers,—who, for some considerable

time, had been in the habit of meeting at each other's houses in the evening, and playing and practising together. The taste had originated with a young man of the place, who had acquired a little knowledge of music at Brighton. He had taught some of his comrades; and, by degrees, they had so increased in number and improved in the art, that now, to use the words of the informant, “there were eight or ten of them that could play by book and in public.” In fact, the next morning, as the traveller was sitting at breakfast, a procession, got up for some annual holiday occasion, passed the inn with a little band of music at its head, playing a march in a spirited, correct manner. The performers were those he had listened to the preceding evening, and some others. There were the carpenter of the village, the village tailor, shoemaker, &c.; and two of them wore the smock-frock common to farmers' men. The homely garbs, becoming their situations in life, were neat and clean; and, without one exception, these rustic musicians had that contented, free, yet modest air we love to see on the faces of Englishmen. The instruments they played were wind instruments. The traveller had seldom listened to the concert of professional persons, or to the opera, where the first-rate artists display their skill, with so much interest as he did to this humble band; for he thought he traced in it an indication and a promise that the refinements, and some of the most exquisite enjoyments, of life might be placed within the reach of the industrious and the poor, and that merely by a little exertion of their own, and in the way of a cheap and rational amusement for their leisure hours.

England, which, taken generally, is now decidedly not a musical country, appears at one time to have had considerable claims to that distinction, and to have merited the name of “Merry England” by the universal prevalence of song and minstrelsy. We shall not here attempt to explain the causes by which the love for the bewitching and most accessible of the fine arts has been uprooted in the minds of the people, but shall merely mention a few facts relating both to our own, and other countries, to show what has been, and what, in our opinion, may be again.

Dr. Burney, in his voluminous and learned work*, establishes beyond a doubt, that not only was there a widely-spread taste for melody in England at a very early period, but that in counterpoint, or music in parts, in songs, glees, and airs which

“The ploughmen whistled o'er the furrow'd land,”

and in secular music generally, we rather preceded than followed the other European nations.

Even the Italian writers of the fifteenth century speak with the greatest respect of the musical talents of this country. Landini, in his ‘Commentary on Dante,’ says, that “many most excellent musicians” came from England to Italy, crossing seas, Alps, and Apennines to hear the performance of a celebrated organist called Antonio degli Organi. And another author, who was leader of the music in the Royal Chapel of Ferdinand, king of Naples, not only mentions the excellence of English vocal music in parts, but attributes (incorrectly as it should appear) the entire invention of counterpoint to an Englishman, John of Dunstable, who lived about the middle of the fifteenth century.

Dr. Burney says that, previously to the middle of the sixteenth century, he could meet with little or no music in parts, except church music, in any foreign country; but that, in England, he found masses in four, five, and six parts, and secular songs in our own language, in two and three parts, and in very good counterpoint, of the fifteenth and beginning of the

* ‘General History of Music.’ 4 vols. 4to.

sixteenth century. The same is asserted by Hawk ns*, though the fact is disputed by Ritson†.

From the frequent mention made by Chaucer of music, both vocal and instrumental, it has been concluded that the love and practise of the art was much diffused among the English people even in the times of that old poet‡. Of his Canterbury Pilgrims met at the Tabard Inn "in Southwark,"

"Wel nine and twenty in a compaignie,"

six are described as being adepts in music,—some playing and some singing,—and two of them (the Squire and the Mendicant Friar) doing both.

Although no music, in parts, of so old a date has been preserved, Dr. Burney is induced by the following passage, which occurs in Chaucer's 'Dreary,' where he is describing a concert of birds,—

"— for some of hem songs lowe,
Some high, and all of one accorde,"

to believe that the practise of singing in parts must have been common at that period. There is no doubt that this delightful kind of music, by which the most beautiful effects may be produced without the aid of any instrument, was a great favourite with the English people at an early period, and was indebted to them for many improvements. A curious composition, descriptive of the approach of summer, the music of which is four hundred years old, whilst the words are still older, has been preserved in a manuscript of the Harleian Library, now in the British Museum. It is a canon in unison for four voices, with the addition of two more voices for the "pes," as it is called, which is a kind of ground, and is the basis of the harmony§. The words of this old song have been partially modernized, thus:—

"Summer is a-coming in,
Loud sing cuckoo;
Growth seed
And bloweth mead,
And springeth the weed new.
Ewe bleateth after lamb,—
Loweth after calf, cow;
Bullock sterteth, (leaps)
Bucke verteth, (frequents green places)
Merry sing cuckoo.
Well sing'st thou, cuckoo;
Nor cease thou ever now."

Of the music Dr. Burney says, that the modulation is monotonous, and that its chief merit is "the airy and pastoral correspondence of the melody with the words,"—a merit, be it said, of no mean value.

Mr. Stafford Smith, towards the end of the last century, made a collection of ancient English songs, written score for three or four voices, but the oldest music to such songs is scarcely intelligible. The number collected, however, proves how popular that sort of music was in early times.

A curious and valuable manuscript has been preserved which once belonged to Doctor Robert Fayrfax, an eminent English composer during the reigns of Henry VII. and Henry VIII. It consists of a collection of old English songs with their music, which is frequently in parts. The composers are, William of Newark, Sheryngham, Edmund Turges, Tudor, Gilbert Banester, Browne, Richard Davy, William Cornyshe, Syr Thomas Phelyppes, and Robert Fayrfax. Most of this goodly number were merely secular composers, and had nothing to do with church music. Cornyshe was one of the best of them, and his rondeau style was followed by the delightful English composer Purcell, nearly two hundred years later.

To be able to sing a part in the madrigals, and other full pieces of the time, was then considered as an indispens-

sable accomplishment, not only for a private gentleman but for a prince. Lord Herbert of Cherbury tells us of Henry VIII., whom we might have suspected of having had "no music in his soul," that he was "a curious musician." It appears, indeed, that that king had, or pretended to have, the merit of composing the music for two high masses, and that he often sang a part himself. We hear of several musicians being about his court; Thomas Abel taught his Queen Catherine "music and grammar," and it is probable that, as was the case in much older times, the schoolmaster generally included music in his instructions. Another musician or poet, by name Gray, is particularly mentioned as having risen high in favour with this same monarch, and afterwards with the Protector, the Duke of Somerset, "for making certaine merry ballades, whereof one chiefly was, 'The hunt is up—the hunt is up*.'"

"A popular species of harmony," says Ritson, whose collection affords several specimens of it, "arose in this reign: it was called 'King Henry's Mirth,' or 'Freemen's Songs,' that monarch being a great admirer of vocal music. 'Freemen's songs' is a corruption of 'Three men's songs,' from their being generally for three voices. Thus the clown in Shakspeare's 'Winter's Tale':—'She hath made me four and twenty nose-gays for the shearers: three-man-song-men, all, and very good ones.'"

A vast number of these pieces, and of canons, rounds, and catches, some of which are ingenious and exhilarating compositions, were produced about this time; and as the press had obtained something like activity, the words of them were printed and scattered over every part of the country. But very few songs for a single voice appeared.

The printed ballads were hawked about in baskets, and the selling and the singing of them, which were sometimes united in the same persons, soon became a profitable branch of trade. In an old pamphlet by one Henry Chettle, which is supposed to have been published in the time of Queen Elizabeth, it is asserted with astonishment and anger that "Out-roaring Dick and Wat Winbars" got twenty shillings a day by singing at Braintree Fair in Essex. It appears that these wandering songsters did not content themselves with the level of the street, or the kennel, as is the case now-a-days, but sang mounted upon benches and barrel-heads;—hence they are frequently called by the old writers *cantabanqui*, or, more correctly, *cantabanchi*, an Italian compound term composed of *cantare* (to sing) and *banchi* (benches). They seem to have called over the list of the wares they had for sale,—a practice not yet obsolete. It may be amusing to compare these titles or head-lines with those we now hear from the ballad-sellers in our streets. The following are a few of the old ones:—'The Thre Ravens, a dirge'; 'Broom, Broom, on Hill'; 'So Woe is me, Begone!'; 'By a Bank as I Lay'; 'Bonny Lass upon a Green'; 'Peggy and Willy'; 'The Lincolnshire Bag-pipes'; 'But now he is Dead and Gone'; 'Over a Whinny Weg'; 'Mine own sweet Willy is laid in his Grave'; 'Three Merry Men we be'; 'Now Robin lend me thy Bow'; 'He is dead and gone, Lady,' &c., &c.

During the reigns of Elizabeth and James I., there flourished several excellent masters, whose compositions bear the stamp of national originality. Among these were Bird, who wrote the still popular canon, 'Noli Nobis Dominare,' and the musician to the beautiful secular song, 'My mind to me a kingdom is'; Morley, his scholar, who produced a great number of canzonettes,

* History of Music.

† 'Ancient Songs, from the Time of King Henry III. to the Revolution.'

‡ Chaucer died about 1400

§ Sir John Hawkins.

* Pattenham's 'Arte of English Poesie,' (published in 1589,) quoted in Ritson.

† The reader will find this moral and beautiful song in No. 25 of the 'Penny Magazine.'

or short songs for three and more voices; Ford, a superior gadu, who published some pieces for four voices accompanied by lutes and viola, and wrote a great many catches which were social and facetious; George Kirby, another good composer of songs in parts; and Thomas Weelkes, whom the immortal Shakespeare often furnished with words for his music. It is, indeed, on the songs in parts of this period, or from 1560 to 1625, that the musical reputation of England must mainly rest. That this sort of vocal music was popular at the time, we may conclude from the following list of the works published by Morley between the years 1593 and 1597.

1. Canzonettes, or short songs, for 3 voices.
2. Madrigals, for 4 do.
3. Ballets, or Fa-las, for 5 do.
4. Madrigals, for 5 do.
5. Canzonnettes, or short airs, for 5 and 6 do.

In fact, instrumental music had made small progress in Europe at the commencement of the seventeenth century; lutes, viols, and virginals, were almost the only instruments in use, and the lovers of music supplied the place of a complicated orchestra by the various qualities of their own natural voices. We would not limit the present age to a such a system, but we would intimate that beautiful effects can be produced by such simple means,—that the most perfect of all instruments is the voice which God has given us, and that, by some attention paid to its cultivation, the poorest family in the land may obtain a pleasant choir, and a medium for the enjoyment of music. We would draw back attention to our own old vocalists, and then it would not stand as a reproach against the English that, while the Scotch and the Irish have a national music, they have none. The truth is, that in our catches and glees, in the works of the composers of the days of Elizabeth and James I., and in those of Parcell, and others at a later period, we are in possession of a music essentially national and original—not taken from any foreign sources.

[To be continued.]

THE EAST INDIA COMPANY.

THE history of the East India Company has had no parallel in the history of nations. To trace the steps by which a company of merchants have mounted the throne of Aurungzebe, before which the representatives of their predecessors appeared kneeling, with their hands bound before them, is a subject requiring the most extensive and various knowledge. The last has been most ably performed by Mr. Mill, in his 'History of British India'; and to that work we refer our readers for a complete view of this large subject. We only propose to introduce a short description of the building represented in our cut, by a rapid account of the great political body to which it belongs.

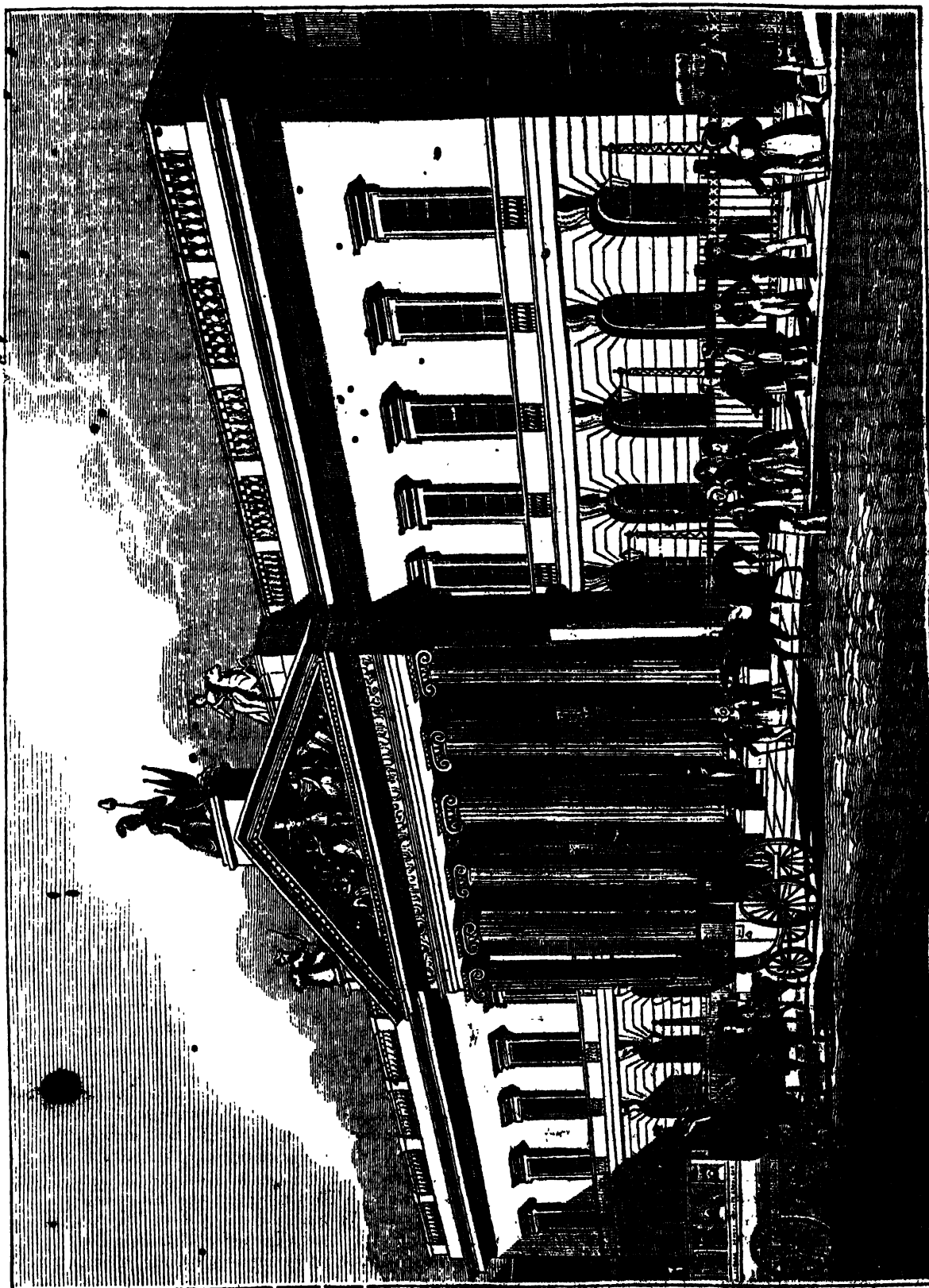
From very early times, the commercial enterprise of Europeans has been directed towards an immediate intercourse with the East Indies. To this, however, the extended power of the Arabian khalfs, and the subsequent establishment of the Turkish and Persian monarchies opposed barriers which were only imperfectly surmounted by the Venetians, who long engrossed all the commerce which Europe had with the East.—From the desire to partake in the wealth which flowed to Venice from this source, arose mainly the splendid maritime discoveries of the Portuguese and Spaniards. We hardly need remind our readers that the discovery of America by Columbus was an accident in his pursuit of a westward passage to India.

The establishment of a maritime route to India, by way of the Cape of Good Hope, by Vasco de Gama, in the year 1498, threw the commerce of the East into

the hands of the Portuguese, who held it without a rival for nearly a hundred years; but the power of Portugal in the East became weakened by the union of that kingdom with Spain, and its decline was accelerated by the establishment of an exclusive company in 1587, which soon became involved in disputes, eventually ruinous, with the Government in India. The revolt of the Netherlands, by excluding the Dutch from their profitable factorship of East India produce, induced them to engage in the direct trade to India, which they did with such brilliant success that the English were soon induced to follow the example.

In the year 1599, just a century from the landing of Vasco de Gama on the coast of Malabar, the first association was formed, in London, for prosecuting trade between England and India. On the 31st of December of the following year, this association obtained a charter, under the title of "The Governor and Company of Merchants of London trading to the East Indies," by which the Earl of Cumberland and 215 other persons obtained, for a period of 15 years, the exclusive right of trading to all countries from the Cape of Good Hope eastward to the Straits of Magellan, excepting those which were in the possession of friendly European powers. The proprietors, thus incorporated, appointed a committee of twenty-four of their number, and a chairman, who were to be chosen annually for the management of their affairs. Until 1613 the Company consisted merely of a society, subject to particular regulations; each member managed affairs on his own account, and was only bound to conform to certain general rules. Notwithstanding the disadvantages of this arrangement, the profits of the trade in this period amounted to from 100 to 200 per cent. on the capital employed. In 1609 the Company obtained the renewal of its charter for an unlimited period, subject, however, to its being dissolved upon three years' notice being given; and about two years after, it was allowed permission to establish factories at Surat, Ahmedabad, Cambay, and Goga, upon its agreeing to pay a duty of 3½ per cent. on all shipments of merchandise. In 1612 the capital was united, and the constitution in consequence became more aristocratic; the largest stock-holders having the principal management, and the great body of the proprietors having only a nominal control in the general meetings. New funds were raised; and the concerns of the Company became so prosperous, that in the course of four years, the shares rose to the value of 208 per cent. Its factories, also, were extended to Java, Sumatra, Borneo, the Banda Islands, Celebes, Malacca, Siam, the coasts of Malabar and Coromandel, but chiefly in the states of the Mogul, whose favour was anxiously cultivated. In consequence of this success, a new subscription, which was opened in 1616, produced 1,600,000*l*.

But in 1627 the opposition to the Stuarts brought into question the monopoly of the Company, which rested only on a royal grant, and many complaints of abuses and bad management were brought forward. The doubts as to the exclusive rights of the Company were strengthened by the conduct of the crown, which, greatly to the disadvantage of the association, granted to individuals the privilege of trading to India. The utmost efforts of the directors to obtain the recall of this license were ineffectual until 1640, when, upon the promise of its annulment, the corporation was required to raise a new joint stock in order to carry on the trade on a sufficiently extensive scale. "It appears probable," says a writer in the 'Companion to the Newspaper,' "from this and other circumstances, that in this early period of the Company's operations, not only were the profits upon the adventures paid to the subscribers, but that the capital sum embarked was also returned to them at the winding up of each adventure." The engagement to withdraw the license of the rival com-



[Front of the East India House, Leadenhall Street.]

pany was, however, not fulfilled; and both associations, feeling the disadvantage that resulted from competition, united their interests in 1650. But five years after a schism occurred in the Company itself; for a body of the proprietors being dissatisfied with the management of the directors, obtained permission from Cromwell to fit out ships for trading with India, but this association, also, formed two years after a coalition with the parent company. Very soon after the Revolution, the Company had a more formidable opposition to encounter. Capital had accumulated in the country, which the owners wished to employ in commercial speculations; and the people had come to a little understanding of

their political rights. Hence the question was started whether the king could impose restrictions on commerce by a charter, and whether a sovereign, who possessed the sovereignty conditionally, could confer them on a privileged corporation: for the unlimited power of life and death over British subjects in the East had been granted in 1624; and in 1667 the right of making peace and war with any prince or people, not being Christians, was conceded. The question was decided in the negative by the House of Commons. But the king having, nevertheless, renewed the charter in 1693, the House passed a resolution, "That it is the right of all Englishmen to trade to the East Indies, or to any part of the

world, unless prohibited by act of parliament." Rivals in the trade started up under the sanction of this declaration, and they ultimately succeeded, by an arrangement with the government, in obtaining a charter of incorporation. This association, however, acted but feebly during the three years of notice to which the old Company was entitled; and so much inconvenience was found to result from the rivalry of the two corporations, that a complete and final union was effected in 1708, when they took the common name of "The United Company of Merchants trading to the East Indies." The act of parliament which recognized this transaction, established the Company upon the footing on which, with some modifications, it remained until the recent alterations. The renewal of the charter in 1732 was not obtained without difficulty, and against much opposition. The Company therefore thought it advisable, in 1744, to advance 1,000,000*l.* at an interest of 3 per cent., for the extension of their grant till 1780.

During the transactions which we have thus briefly glanced over, the Company was gradually fixing its roots in India. The establishment of Fort St. George in 1640, the grant of Bombay in 1668, and the settlement of Calcutta in 1698, laid the foundation for the extension of its possessions into the interior of Hindostan, and for that power which rose on the ruins of the Mogul's empire. But although, towards the conclusion of the seventeenth century, the Company felt and avowed that territorial acquisitions were necessary for the security of its commerce, its political power in India can only be considered to have commenced subsequently to the renewal of its charter in 1744. Until that period the military organization of the Company had been merely defensive, but it soon began to occupy such a situation as made it, to the native powers, an important ally, and no contemptible opponent. We cannot here even touch on the onward march of a power which now rules over a population of 83,000,000 natives of India, besides 51,000,000 who are directly or indirectly under its control.

Such enormous expenses were incurred by the enlargement of territory, that the Company was obliged to petition parliament, in 1773, for relief, in consequence of which it obtained a loan of 1,400,000*l.* for four years; but, in return for this advance, and for the sum of 400,000*l.* a year, which the Company had engaged to pay for permission to hold its territories, and which government engaged, for the time, to forego, parliament took occasion to make considerable changes in its constitution, and to assume a general regulation of its affairs. To render the control of the government over the Company's affairs the more efficient, a board of six privy councillors was established in 1784, with the duty of superintending its territorial concerns, and whose approval was made necessary to all its measures. The half-yearly inspection of its pecuniary accounts had been previously secured to the Treasury by the measure of 1773; but, on the renewal of the charter in 1813, it was directed that the accounts should be laid before parliament yearly; and, on the same occasion, the trade to India was thrown open to the public under certain regulations, while that to China, and the trade in tea generally, were reserved exclusively to the Company. The important act of August 28, 1833, deprives the Company of its remaining commercial privileges, but leaves it in possession of the government of the British territories in India until 1854.

Our wood-cut represents the front in Leadenhall Street, of the East India House. In this building the courts are held, and all the official and general business transacted. The present edifice was preceded by a smaller house, erected in 1726, which only occupied the extent of the present east wing. The inconvenient accommodation which is afforded to the augmented business

of the Company led to the construction of the present fabric, which was executed from the designs of Mr. Jupp, in the years 1798 and 1799. A portion of the interior of the old house was preserved; but by far the greater part was erected from the ground, on the site of various buildings which had been purposely taken down. The front, composed of stone, is 200 feet long, and has an air of considerable grandeur, principally arising from the extent and elevation of its central portico, which consists of six Ionic columns, fluted, supporting an enriched entablature and pediment. The frieze is sculptured with ornaments, and the pediment exhibits several figures emblematical of the commerce of the Company, protected by George III., who is represented as extending a shield over them. On the apex of the pediment is a statue of Britannia, at the east corner a figure of Asia seated on a dromedary, and at the west another of Europe on a horse. The interior has several noble apartments. The Grand Court Room contains a fine bas-relief, in white marble, representing Britannia, attended by Father Thames, while three female figures, emblematical of India, Asia, and Africa, present their various productions. Other principal rooms are adorned with portraits and statues of persons who have distinguished themselves in the Company's service, and with paintings, chiefly of Indian scenery. The Library contains an extensive collection of Oriental manuscripts, Chinese printed books, Indian drawings, and copies of almost every work that has been published relative to Asia. The Museum abounds with Indian and other Asiatic curiosities of much interest, which are well worthy inspection. For the purpose of seeing the Museum, a director's order must be obtained.

THE CAT PAINTER.

The subject of this paper, Gottfried Mind, was a very remarkable man, with one pursuit,—almost with only one idea. In the exercise of the one talent which he possessed, he was highly distinguished. In most other things, his power was not superior to that of ordinary men; in many respects, it was inferior. He was a painter of *cats*; and, with the exception of *bears*, which he occasionally delineated, he appeared to think that all other objects, however beautiful, were unworthy his notice. The following account is drawn from the 'Biographie Universelle' and the 'Biographie des Contemporains.'

This remarkable person was born at Berne, in Switzerland, in the year 1768. His father, who survived him, was a native of Hungary, but had settled at Berne, where he exercised the trade of a jeweller. As Gottfried manifested a taste for drawing, his father placed him with Frudenberger, a clever artist; but who, neglecting or not perceiving Mind's talent for design, employed him in colouring his 'Sketches of Helvetic Customs.' For several years after the death of his master, he remained with the widow; and appears to have been kept so constantly to his work that* if he possessed the inclination, so little time was allowed him for the cultivation of his mind, that he was scarcely able to write his own name. Nevertheless, he sometimes contrived to steal a few moments from his manual labour to design children in their gambols and disputes, and he soon learned to group his figures very successfully, in the manner of Frudenberger. We are not informed how his attention was first directed to the study of bears and cats, to which he became devoted with remarkable exclusiveness, earnestness, and zeal, without which the most gifted can seldom attain the objects they pursue. The truth and excellence with which Mind represented these two species of animals were without precedent; and his drawings of cats, especially, were so admirable as to entitle him to the honourable, but rather awkward, title of "the Raphael of Cats,"

by which he was distinguished. No painter before him had ever succeeded in representing, with so much of nature and spirit, the mingled humility and fierceness, gravity and cunning, which the appearance of this animal presents, or the grace of its various postures in action or repose. Kittens he particularly delighted to represent. He varied, to infinity, their fine attitudes whilst at play around the mother; and represented their gambols with inimitable effect. Each of his cats, too, had an individual character and expression, and was, in fact, a portrait, which seemed animated: the very fur appeared so soft and silky as to tempt a caressing stroke from the spectator.

In time, the merit of Mind's performances came to be so well understood that travellers made it a point to visit him, and to obtain, if possible, his drawings, which even sovereigns sought for, and amateurs treasured carefully in their portfolios. But it does not appear that popularity had any effect on him, either for good or evil, or in any degree modified his simple tastes and habits of life. His attachment was unbounded to the living animals he delighted to represent. Mind and his cats were inseparable. Minette, his favourite cat, was always near him when at work; and he seemed to carry on a sort of conversation with her by gestures and by words. Sometimes this cat occupied his lap, while two or three kittens were perched on each shoulder, or reposed in the hollow formed at the back of his neck, while sitting in a stooping posture at his table. Mind would remain for hours together in this posture without stirring, for fear of disturbing the beloved companions of his solitude, whose complacent purring seemed to him an ample compensation for the inconvenience. Not at any time what is called a good-humoured man, he was particularly surly if disturbed by visitors when thus situated.

Symptoms of madness having been manifested among the cats of Berne in the year 1809, the magistrates gave orders for their destruction. Mind exhibited the greatest distress when he heard of this cruel mandate. He cherished his dear Minette in secret; but his sorrow for the death of 800 cats immolated to the public safety was inexpressible, nor was he ever completely consoled. To soothe his regret, and as if to re-produce the victims with his pencil, he began to paint cats with increased diligence, and he amused the long evenings of the ensuing winter in cutting chesnuts into the miniature figures of bears and cats. These fine trifles were executed with such astonishing address, that, notwithstanding his dexterity, he was unable to supply the demand for them. But, being mostly employed as ornaments for the mantel-piece, they were soon attacked by worms, and there is scarcely reason to expect that any specimens of Mind's talents in this line now exist.

The secondary attachment of Mind was for bears; and he was a frequent visitor to the place where some of these animals were kept by the municipal authorities. The artist and the bears soon became well acquainted. They ran to meet him whenever they saw him approach, and received, with very sensible demonstrations of attachment and gratitude, the bread and fruit with which he always came provided.

Next to cats and bears, the greatest pleasure of Gottfried Mind consisted in examining works of art in which these or other animals were represented. They might be introduced as very subordinate figures, but he seemed quite insensible to any other beauties or defects which the performance might contain, and formed his opinion solely with a view to the animals represented. He was hard to please. No perfection in a picture could atone for want of spirit in representing animals, particularly cats and bears. He had then no mercy to show. But when he found a work which met his ideas, hours and even days of study hardly sufficed to satisfy him.

Mind was short of stature, with a very large head, in which his eyes were deeply sunk. His complexion was of a ruddy brown; his voice hollow and rattling, which, joined to a sombre physiognomy, had a repulsive effect upon those who saw and heard him for the first time. His death took place at Berne, November 8th, 1814.

BOOKS IN THE MIDDLE AGES.

THE orders which relate to books in the 'Close Rolls' of this period are interesting, not only as illustrating the literary taste of the age, but principally because they generally contain some circumstance which shows the scarcity and value of the article. It was not until a period considerably subsequent to the invention of printing, that the cost and rarity of books ceased to obstruct the advancement of learning and the diffusion of knowledge. We may quote the statement of Henry, in his 'History of Great Britain,' that, in the middle ages, "None but great kings, princes, and prelates, universities and monasteries, could have libraries; and the libraries of the greatest kings were not equal to those of many private gentlemen or country clergymen in the present age. The Royal Library of France, which had been collected by Charles V., VI., and VII., and kept with great care in one of the towers of the Louvre, consisted of about 900 volumes, and was purchased by the Duke of Bedford, A.D. 1425, for 1200 livres. From a catalogue of that library still extant, it appears to have been chiefly composed of legends, histories, romances, and books on astrology, geomancy, and chiromancy, which were the favourite studies of those times. The kings of England were not so well provided with books. Henry V., who had a taste for reading, borrowed several books, which were claimed by their owners after his death. The Countess of Westmoreland presented a petition to the Privy Council, A.D. 1424, representing, that the late king had borrowed a book from her, containing the 'Chronicles of Jerusalem,' and the 'Expedition of Godfrey of Boulogne,' and praying that an order might be given, under the privy seal, for the restoration of the said book. This order was granted with great formality. About the same time, John, the prior of Christ Church, Canterbury, presented a similar petition to the Privy Council, setting forth, that the king had borrowed from his priory a volume containing the works of St. Gregory; that he had never returned it; but that, in his testament, he had directed it to be restored; notwithstanding which, the prior of Shine, who had the book, refused to give it up. The Council, after mature deliberation, commanded a precept, under the privy seal, to be sent to the Prior of Shine, requiring him to deliver up the book, or to appear before the Council to give the reasons of his refusal. These facts sufficiently prove that it must have been very difficult, or rather impossible, for the generality of scholars to procure a competent number of books." The extreme costliness of the article rendered it no less difficult to borrow books than to buy them. To illustrate this, the same writer, in another part of his work, quotes from Comines the fact, that Louis XI. was obliged to deposit a considerable quantity of plate, and to get one of his nobility to join with him in a bond under a high penalty to return it, before he could procure the loan of one volume, which may now be purchased for a few shillings.

In a Close Roll, dated 29th of March, 1203, King John writes to the Abbot of Reading to acknowledge that he had received, by the hands of the sacrist of Reading, six volumes of books, containing the whole of the Old Testament. The receipt is also acknowledged of 'Master Hugh de St. Victor's Treatise on the Sa-

crament; the 'Sentences of Peter the Lombard'; the 'Epistles of St. Augustine, on the City of God and on the Third Part of the Psalter'; 'Valerian de Moribus'; 'Origen's Treatise on the Old Testament'; and 'Candidus Arianus to Marius.' The following month, the king wrote to the same abbot to acknowledge the receipt of his copy of Pliny; which the abbot had in his custody.

In 1249 King Henry III. orders Edward, the son of Otho of Westminster, to cause to be purchased certain church-service books, and to give them to the constable of Windsor Castle, that he might deliver them by his own hand to the officiating chaplains in the new chapel at Windsor, to be used by them; and they were then to be held responsible to the constable for "this library," consisting of eight books. Another Close Roll of the same king, dated 1250, commands Brother R. de Sanford, Master of the Knights of the Temple in England, to allow Henry of the Wardrobe, the bearer, to have for the queen's use a certain great book which was in their house at London, written in the French dialect, containing 'The Exploits of Antiochia, and of the Kings, and others.' This work was probably a French translation of a Latin heroic Poem, entitled 'The War of Antioch, or the Third Crusade of Richard I.,' written by Joseph of Exeter, otherwise called Josephus Iscanus; and was perhaps wanted by the queen to elucidate the paintings in the "Antioch Chamber." It is observable that all the books mentioned in these Rolls are either in the Latin or French language. Indeed no English literature at that time existed, if we except some metrical chronicles, romances, chiefly translations of French romances and romances, few of which, of a very marvellous character, a few of which have, of late years, been printed from MSS. still extant.

SWIFTNESS OF THE OSTRICH.

THE bird most celebrated for fleetness of running is the ostrich, or bird camel (*Struthio Camelus*), as it may well be named. "What time she lifteth up herself on high," says Job, "she scorneth the horse and his rider." According to Dr. Shaw, the wings serve her both for sails and oars, whilst her feet, which have only two toes, and are not unlike the camel's, can bear great fatigue. Though the ostrich is universally admitted to go faster than the fleetest horse, yet the Arabs on horseback contrive to run these birds down, their feathers being valuable, and their flesh not to be despised. The best horses are trained for this chase. When the hunter has started his game, he puts his horse upon a gentle gallop, so as to keep the ostrich in sight, without coming too near to alarm it and put it to its full speed. Upon observing itself pursued, therefore, it begins to run at first but gently, its wings like two arms keeping alternate motion with its feet. It seldom runs in a direct line; but, like the hare, doubles, or rather courses in a circular manner; while the hunters, taking the diameter or tracing a smaller circle, meet the bird at unexpected turns, and with less fatigue to the horses. This chase is often continued for a day or two, when the poor ostrich is starved out and exhausted, and finding all power of escape impossible, it endeavours to hide itself from the enemies it cannot avoid, running into some thicket, or burying its head in the sand: the hunters then rush in at full speed, leading as much as possible against the wind, and kill the bird with clubs, lest the feathers should be soiled with blood.

M. Adanson saw two tame ostriches which had been kept two years at the factory of Podor, on the south bank of the Niger. "They were so tame," he says,

* One of the class of writers known as the "Schoolmen." This work obtained him the title of "the Master of the Sentences." Both he and Hugh de St. Victor lived in the preceding century. The rest are old Latin authors.
† Job xxxix. 18.

"that two little blacks mounted both together on the back of the largest: no sooner did he feel their weight, than he began to run as fast as ever he could, till he carried them several times round the village; and it was impossible to stop him, otherwise than by obstructing the passage. This sight pleased me so well, that I would have it repeated: and to try their strength, I made a full-grown negro mount the smallest, and two others the largest. This burden did not seem to me at all disproportioned to their strength. At first they went a moderate gallop; when they were heated a little they expanded their wings as if it were to catch the wind, and they moved with such fleetness that they seemed to be off the ground. Everybody must some time or other have seen a partridge run, consequently must know there is no man whatever able to keep up with it; and it is easy to imagine that if this bird had a longer step, its speed would be considerably augmented. The ostrich moves like the partridge, with both these advantages; and I am satisfied that those I am speaking of would have distanced the fleetest race-horses that were ever bred in England. It is true they would not hold out so long as a horse; but without all doubt they would be able to perform the race in less time. I have frequently beheld this sight, which is capable of giving one an idea of the prodigious strength of an ostrich, and of showing what use it might be of, had we but the method of breaking it and managing it as we do a horse*."

The traveller, Moore, mentions that he saw a man journeying mounted upon an ostrich; though both this and the instance given by M. Adanson show the circumstance to be of unusual occurrence.—From the 'Fucilli of Birds.'



(Ostrich carrying a Negro.)

* Voyage to Senegal, Minkerton's Collection, xvi. 619.

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THE WHITE STORK.



[The Stork.]

THIS tall and stately bird (*Ciconia alba*), although a visiter of the continent of Europe, from the north of Spain to Prussia, and particularly common in Holland, is only seen in this country as exhibited in menageries. It was once, however, common; and its almost complete extinction here is one of the many evidences of the changes which man produces by the operations of his industry. The marshy grounds, which formerly existed to a great extent in England, have been drained and cultivated. One or two solitary storks have been shot in this country during the present century. The bird generally stands from three-and-a-half to four feet high, including the long neck. The feet are webbed, and the legs are exceedingly long, and do not appear of a thickness commensurate to the bulk they sustain. The neck is also of great length; and the beak is straight, long, pointed, and compressed. The stork walks slowly, and with measured steps; but its flight is powerful and long continued, and it is accustomed to traverse the

higher regions of the air. The stork represented in our wood-cut is an adult male, copied, by permission, from Mr. Gould's splendid work on the 'Birds of Europe.' This beautiful publication, in its design and execution, is as creditable to the country as to its author.

Storks are birds of passage. They spend the winter in the deserts of Africa and Arabia, and in summer return to towns and villages in colder latitudes, where they build their nests on the summits of old towers and belfries, on the chimnies of the highest houses, and sometimes in dead trees. In marshy districts, where the services of the bird in destroying reptiles are of peculiar value, the people frequently fix an old cart-wheel, by the nave, in an horizontal position, to the extremity of a strong perpendicular pole;—an accommodation which seems so very eligible to the birds, that they rarely fail to construct their capacious habitations on such platforms. The nest is a large cylindrical

structure, built very strongly and durably with sticks, twigs, and strong reeds; and lined on the inside with fine dry herbs, mosses, and down gathered from the bushes. These fabrics last many years, and to them the faithful couples yearly direct their unerring course, from far distant regions, to deposit their eggs, and rear their young.

The eggs in a nest vary in number; not less than two, and seldom exceeding four. The female covers these with the most tender solicitude. Instances are recorded in which she has rather chosen to die than resign her charge. An affecting incident of this nature occurred on the day of the "memorable battle of Friedland," as related by M. Bory de St. Vincent, in an article of the 'Encyclopédie Moderne.' A farm in the neighbourhood of the city was set on fire by the falling of a bomb, and the conflagration extended to an old dry tree on which a pair of storks had built their nest. It was then the season of incubation, and the mother would not quit the nest until it was completely enveloped in flame. She then flew up perpendicularly; and, when she had attained to a great height, dashed down into the midst of the fire, as if endeavouring to rescue the precious deposit from destruction. In one of these descents, enveloped in fire and smoke, she fell into the midst of the burning embers, and perished.

This constancy during the period of incubation is succeeded by the most assiduous care in the rearing of the young. The parents never lose sight of them. While one of the two is abroad in search of serpents, lizards, frogs, or snails, the other remains in charge of the nest. When the young have acquired strength and vigour, it is highly interesting to observe the tender couple assist them in their first career through the air. The progeny are said to repay this care and kindness, when the parents are old and feeble, by supporting their wings, when weary, in the long flights of their migration. But though it be true that the weak and old are thus assisted by the vigorous and young, we have no means of knowing that the assistants are the progeny of the assisted. The parents and the young continue to live together until the season of migration. For about a fortnight previous to that event, all the storks of the district assemble frequently in some neighbouring plain, and appear to hold a council to determine the destination, and the time of departure.

When they at length take their departure, the flocks are generally of great extent, and vary much in compactness. They are sometimes, according to Dr. Shaw, half a mile in breadth, and take three hours in passing. As they have no voice, their course is usually unattended by any noise but that of their wings; but, when anything occurs to startle them, or engage their attention, they make an extraordinary clattering noise, which may be heard to a great distance, by striking the mandibles quickly and forcibly together. By their migrations, they enjoy at all times a nearly equal temperature; avoiding those severe seasons in which the reptiles that form their food remain hid and torpid during a considerable part of the year.

There is a peculiar interest attached to this bird, from the efficient protection which, in all ages and countries, it has received from man. In ancient Egypt it was a capital crime to kill a stork; and there, and elsewhere, its safety and existence are still defended by penal laws. Indeed, there is, perhaps, no country in which it is accustomed to visit where its death would not be avenged, either by legal penalties or popular indignation. This protection is, doubtless, in some measure owing to the amiable dispositions it exhibits; but must chiefly be attributed to the importance of its services in destroying the reptiles which abound in the districts that it usually frequents. The protection it receives is returned by the confidence with which the stork constructs its

domicile in the midst of the most densely populated cities, and views from it the near approach of man without alarm.

In Bagdad, and some other of the more remote cities of Asiatic Turkey, the nests of storks present a very remarkable appearance. The *minars*, or towers of the mosques, at Constantinople, and most other parts of Turkey, are tall, round pillars, surmounted by a very pointed cone; but at Bagdad, the absence of this cone enables these birds to build their nests upon the summit; and as the diameter of the nest generally corresponds with that of the minar, it appears as a part of it, and a regular termination to it. The curious effect is not a little increased by the appearance of the bird itself in the nest, which thus, as part of the body and its long neck are seen above the edge, appears the crowning object of the pillar. The Turks hold the bird in more than even the usual esteem, which may be partly attributed to its gesticulations, which they suppose to resemble some of their own attitudes of devotion. Their name for the stork is *Hadji Lug-lug*: the former word, which is the honorary title of a pilgrim, it owes to its annual migrations, and its apparent attachment to their sacred edifices. The latter portion of the denomination, "lug-lug," is an attempt to imitate the noise which the bird makes. The regard of the Turks is so far understood and returned by the intelligent stork, that, in cities of mixed population, it rarely or never builds its nest on any other than a Turkish house. The Rev. J. Hartley, in his 'Researches in Greece and the Levant,' remarks:—"The Greeks have carried their antipathy to the Turks to such a pitch, that they have destroyed all the storks in the country. On inquiring the reason, I was informed 'The stork is a Turkish bird: it never used to build its nest on the house of a Greek, but always on that of a Turk.' The tenderness which the Turks display towards the feathered tribe is indeed a pleasing trait in their character."

THE LABOURERS OF EUROPE.—No. IX.

THE PEASANTRY OF THE ALPS.—SAVOY.

THE vast chain, or rather chains of the Alps, with their numerous ramifications, enclose several extensive countries inhabited by various races. The principal ones are Savoy, Switzerland, the Grisons, the Tyrol, and several valleys on the Italian side of the mountains. Throughout all these countries the great outlines of the landscape are much alike; but the soil, the climate, and the products of the several districts are greatly varied, as well as the habits, character, and institutions of the people. We shall devote a separate sketch to each of these great divisions of the Alpine system.

Savoy is situated on the western slope of the Alps, which divide it from Italy. Another offset of the same mountains divides it on the south from France, from which country it is likewise separated to the west by the river Rhone and another ridge which is an offset of the Jura. Savoy is neither French nor Italian; it is geographically connected more properly with Switzerland. Its inhabitants speak among themselves a native dialect; most of them, however, know French also, and all educated people speak it fluently and correctly. The country has been for nearly eight hundred years under the dominion of the House of Savoy, who were at first lords or counts of one of its valleys called Maurienne, and who by degrees subjected or inherited the remainder from the other feudal lords of the country. When, afterwards, the dukes of Savoy, having acquired size and extensive provinces on the Italian side of the Alps, transferred their residence to Turin, where they at last assumed the title of Kings of Sardinia, Savoy remained a province of the monarchy with the title of duchy.

The eastern part of Savoy consists of deep valleys embedded in the highest Alps, which follow the course of the rivers that issue from the main ridge, and afterwards flow into the Rhone. The three principal of these valleys are Faucigny, Tarentaise, and Maurienne. Each of these constitutes a province, and contains towns and villages. The northernmost province, called Chablais, is likewise very mountainous, but it opens to the lake of Geneva, of which it forms the southern coast. The western part of Savoy is more level, and the people are chiefly employed in agriculture. But in the great valleys, the rearing of cattle is the chief resource of the inhabitants. The whole population of Savoy is about half a million.

Besides the nobility, which is numerous but not rich, there are three classes of people in Savoy. First, the bourgeois, or citizens, who are freemen of the different towns, and who are generally proprietors, having a sufficient income to live upon. The bourgeoisie or freedom may be purchased under certain conditions; the purchase money goes to the support of the hospitals and other public uses, and part of it serves to defray the expense of a civic feast on the reception of the new member. The second class consists of farmers, whether tenants or proprietors, cultivating their own land; they live frugally, but are generally comfortable. The third class is composed of artisans and journeymen labourers: the former are mostly foreigners or sons of foreigners, and they are well employed and paid, but the agricultural labourers are generally poor, and live wretchedly. It is from this class that travellers derive their notions of the misery of Savoy. And yet they are not all so very distressed. A labourer receives from 1s. to 1s. 3d. per day, and half the amount if he is boarded. A carpenter or wheelwright has two francs, or 1s. 8d. a day. With these wages he can purchase sufficient wholesome food for himself and family, according to the frugal manner in which they live. But then he has to deduct about seventy days in the year, consisting of Sundays and other holidays, as he is paid by the day. Again, during part of the winter he either has no employment or works at reduced wages. These difficulties induce many to emigrate. The convents at one time supplied food to the poor, but the convents have been suppressed, and no provision has been made for the poor in lieu of them. The farmers who tenant the lands of the wealthier proprietors, especially in the lowlands and near the towns, are either *grangers* (another word for *métayers*), who deliver one-half of the produce to the proprietor, mostly in kind, which the latter sells in the market, or *tûcheurs*, who are removable at the end of every year, and who give the proprietor four-fifths of the corn, half the wine, and half the produce of the dairy. Leases are generally for three years only.

The inhabitants of the mountains are more comfortable than those of the lower valleys or plains of western Savoy. This is owing to the rich pastures which the Alps spontaneously afford. The riches of a mountain peasant are estimated by the number of cows he can keep during the winter, for he must have sufficient land to supply them with fodder while they are kept in the stables. A man having twenty-five cows is considered wealthy. Many peasants have meadows, and rude habitations called *chalets*, made of logs of wood. In winter they live at the bottom of the valley where their principal residence is, comprising the dwelling-room for their family and stabling for their cattle, often in the same building, divided by a partition. The neighbourhood of the cattle contributes to the warmth of the house. In the spring, they ascend gradually as the heat pushes out vegetation and the snow retires from the ground. In the autumn, they descend by the same gradations.

There are three sorts of natural pastures: the highest ones, which are only for the summer months, and are mostly common land; those lower down the sides of the mountains, which are generally excellent, many affording three annual crops of grass, and which might be further improved by artificial irrigation; and the lowest ones, which are at the bottom, and are mostly marshy and chill. The less wealthy peasants find a great resource in the common pastures, to which they send as many cows as they can afford to keep in the winter, for that is the main consideration. The poor, who have no meadows to supply fodder for the winter months, cannot avail themselves of the common pasture lands. Eight days after the cows have been driven up into the common pasture, all the owners assemble, and the quantity of milk given by each cow is weighed. The same operation is repeated one day in the middle of the summer, and again at the end of the season; and then the quantity of cheese and butter, which is made in common at the *chalet* or dairy, is divided according to the quantity of milk each cow yielded on the days of trial. There are also public dairies in some of the villages, where the poorer peasants may bring all the milk they can spare from their daily use. The milk being measured, an account is kept of it, and at the end of the season a proportionate quantity of cheese is delivered to each, after a deduction for the cost of making it.

Not many large flocks of sheep are kept in the valleys of Savoy, as they require to be housed during the winter, when they are fed chiefly upon dried leaves of trees. Poor families keep a few sheep to supply them with wool for their domestic use. "These little flocks are driven home every evening, generally accompanied by a goat or a cow, a pig, and an ass, and followed by a young girl spinning with a distaff. As they wind down the lower slopes of the mountains they form the most picturesque groups for the pencil of the painter, and carry back the imagination to the ages of pastoral simplicity sung by Theocritus and Virgil."

Emigration during winter is general among the poorer peasantry of the higher valleys. The men leave their homes in the autumn, and proceed to France or Italy in quest of work, while their wives take care of the house, and spin and weave during the long winter evenings, for they make all their clothing at home. At the beginning of spring the men return to work in the fields or drive the cattle up the Alps. The younger emigrants wander farther, and remain sometimes absent for years; they proceed to Lyons and Paris, where they find employment as chimney-sweepers, shoe-blacks, hawkers, and errand-boys (*commissionnaires*), and are to be seen at the corners of the streets of the French metropolis, where they bear an excellent character for honesty and sobriety. There is a difference remarked between the emigrants of the different valleys. Those from the Maurienne, which is the poorest, are the most numerous and also the humblest in their vocations; they are chiefly chimney-sweepers or shoe-blacks; those from Tarentasia are more aspiring, for although they begin by the same callings, they often raise themselves in some branch of trade; and many have established houses in various parts of France. The emigrants of Faucigny are mostly carpenters and stone-masons. They possess much mechanical ingenuity, and are the best informed among the mountaineers of Savoy. The best hunters of chamois are also to be met in Faucigny, and they follow that dangerous sport with an ardour extinguished only by death. The people of Faucigny export cattle, cheese, butter, flax, and honey,—which last is very much esteemed. Those of Maurienne and Tarentasia export likewise cattle and mules to Piedmont and to France: they supply the markets of Turin

* Bakewell's 'Residence in Tarentasia.'

with butchers' meat, hides, butter, and cheese. Most of the cheese, called of Mont Cenis, and somewhat resembling Stilton, is made in the Maurienne. The cheese of Tarantasia resembles the well-known Swiss cheese called Gruyere. The people live chiefly on the produce of their dairies: they eat rye-bread, or cakes made of oatmeal and rye, which are baked twice in the year, chestnuts, and now and then a piece of salt meat. The land in Tarantasia is more productive than in the Maurienne or Faucigny; the valley is better sheltered from the north winds; and fruit-trees, the vine, barley, and buck-wheat, are cultivated there to the very foot of the little St. Bernard. Accordingly, the peasants of Tarantasia are more comfortable than their neighbours; their houses are better built, and kept cleaner than those of the Maurienne. Tarantasia is rich in minerals. The lead and silver mines of Pesci and Macot are worked on account of the government. They give employment to 600 persons of both sexes. A school of mineralogy has been established at Montiers, the head town of Tarantasia. The salt-pits, near Montiers, furnish another branch of industry. There are mineral-springs at La Perrier, which begin to be frequented by strangers, and also at Bonneval, near the foot of the highest Alps. The people of Tarantasia are peaceable, honest, and hospitable. The attachment of the Savoyards to their native mountains is a feeling which lasts for their whole lives. In almost every little town or village there are gifts left by natives, who, after many years' residence in distant countries, have returned in their advanced age. It is in the churches chiefly that such gifts are seen, for the Savoyards are a religious people, though not superstitious.

Marriages in these mountains are attended with much festivity and ceremony. When a young man is first admitted to spend the evening at the house of a maid to whom he wishes to pay his addresses, he watches the arrangement of the fire-place, where several billets of wood are blazing. If the fair one lifts up one of the billets and places it upright against the side of the fire-place, it is a sign she does not approve of her suitor. If she leaves the blazing wood undisturbed, the young man may be sure of her consent. The preliminaries of the contract are soon arranged. The bridegroom makes a present to his betrothed as a pledge of his sincerity, and the following Saturday the contract is signed. At the marriage festival, twenty-four hours are passed in rejoicings, for this is the most important event in the life of these simple mountaineers. The parish church, often at a great distance from the various hamlets scattered on the mountain-sides, is the only place of meeting in these districts. There, once a week, the various families see each other's faces. After a week's separation from all the rest of mankind, amidst wild solitudes where nothing is heard but the noise of the torrent and the roar of the storm, the sound of the church-bell has a peculiar charm, and the meeting at church is a real festival. Accordingly, the Savoyards take particular care of their churches; which, even in the poorest and most mountainous parishes, are neat, and often handsome, and kept in good repair, whilst their own habitations are rudely constructed, and often dilapidated.

LEONARDO DA VINCI.

LEONARDO DA VINCI was born in the castle of Vinci, near Florence, in the year 1452. He was the illegitimate son of a person of noble descent, who exercised the profession of a notary. It appears that young Leonardo soon began to exhibit powers of mind and personal endowments, which his father contemplated with pride and satisfaction, and took the proper measures to cultivate. He was handsome, well-formed,

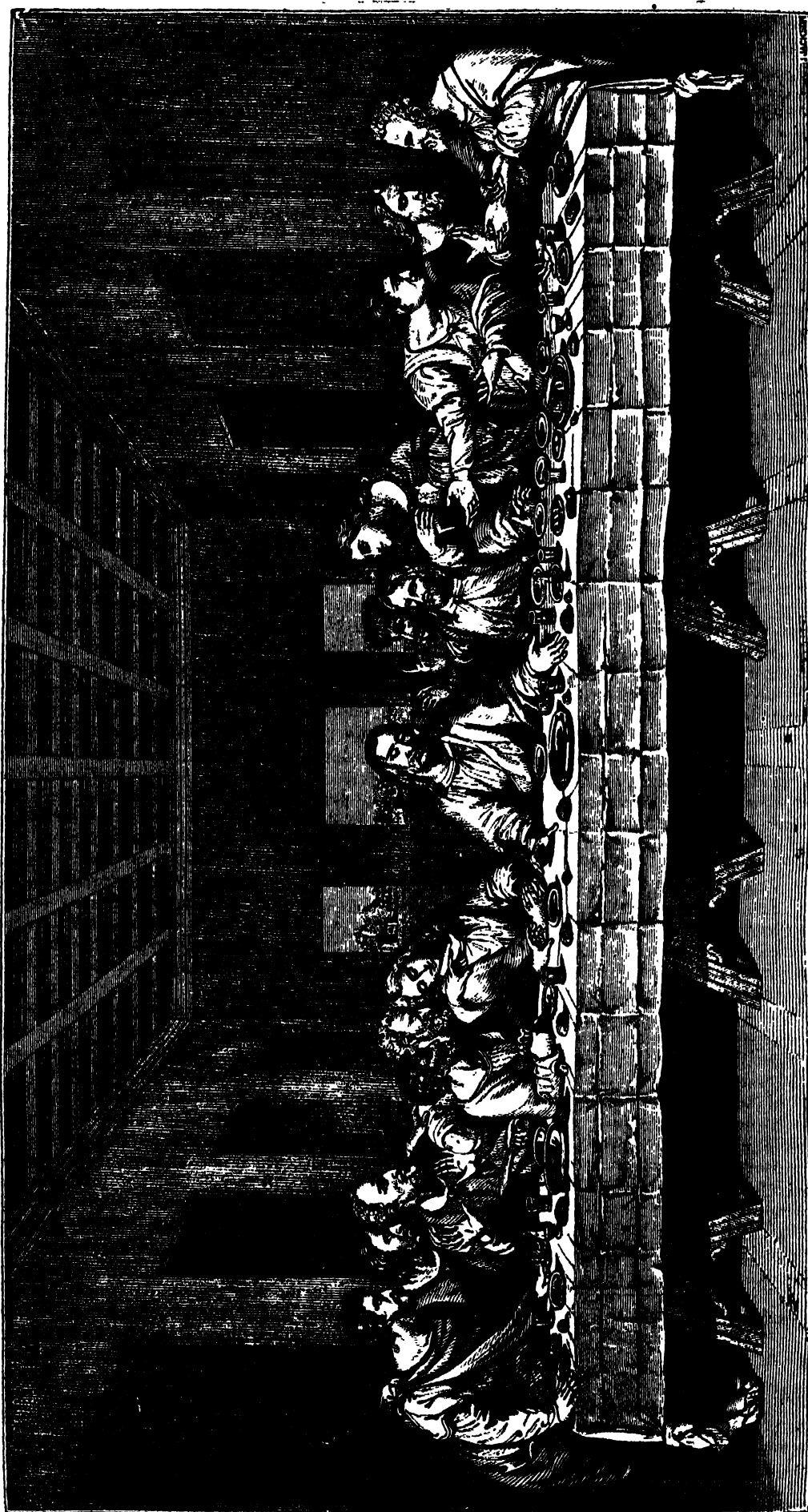
and possessed of great bodily strength; and to his physical accomplishments he joined at a very early period an extraordinary inclination for the arts and sciences. Not content to excel in fencing, horsemanship, dancing, and music, he had in early youth acquired a considerable knowledge of mathematics, natural science, philosophy, and the various branches of literature. The zeal and success with which he applied himself to such miscellaneous pursuits did not impair his taste for painting; which, indeed, so predominated, that his family placed him as a student with Andrea Verocchio, in whose school he found Pietro Perugino, the future master of Raphael. Under Verocchio, Leonardo made so rapid a progress, that he soon surpassed his master, who was at first charmed with his pupil, but at last became jealous of him.

After this event, Leonardo remained sufficiently long at Florence to establish a reputation, and acquire confidence in his own powers. He possessed great talents, profound skill, and a discerning judgment; to these he added untiring industry and continued perseverance. To these latter qualities he of course owes much of his fame; he was all his life a learner; and, in his peculiar art, always on the watch to seize and appropriate the hints which the observation of nature supplied.

In the year 1489, Leonardo went to Milan to execute an equestrian statue, which the Duke Ludovico Sforza intended to erect to his father. His many accomplishments and professional merits procured him a distinguished reception from the prince, whose subsequent strong attachment to Leonardo was equally honourable to himself and the artist. He was appointed Director of the Academy of Painting and Architecture, which his patron had founded. The period of Leonardo's stay at Milan was probably the happiest of his life. He possessed the confidence and esteem of the duke; his supremacy in art was unquestioned; and the intervals of his severer studies, as a sculptor, painter, engineer, and mechanist, were solaced with music, poetry, and literature. It seems uncertain whether he ever completed the statue of the Duke Francesco. He made a model; but on a scale so exceedingly colossal that it was deemed impracticable to cast it in bronze. Leonardo himself said the work was so great that he might labour all his life without bringing it to a completion. It is affirmed, however, that he did finish it; but that, with the model, it was destroyed in the revolution of 1499. Its height is said to have been seventy-two feet, and the weight two hundred thousand pounds.

In the list of the undertakings performed by Leonardo at Milan, there are several by which the versatility of his talents is indicated. As an engineer, he triumphed over difficulties which had been considered insurmountable, by effecting a junction between the canals of Martesana and Ticino; and his mechanical skill was exhibited by several ingenious machines and automata, which our limits do not permit us to particularize. His pencil was not unemployed at Milan, for it was there that, among other works, he painted the famous picture of the "Last Supper," in the refectory of the Dominicans, by the express order of the duke. This splendid monument of the genius of Leonardo da Vinci is copied in our wood-cut, which will convey to our readers some idea of the arrangement and general character of the performance, in speaking of which we cannot do better than quote the description and opinion of another great painter, Rubens. "The best example of his genius which Leonardo has left us is the 'Last Supper.'" In this picture he has represented the Apostles in places suitable to them: but our Saviour is in the midst of all; in the most honourable place, with no figure near enough to press or incommode him. His attitude is grave, with the arms

in a loose and free posture, to show the greater grandeur ; while the apostles appear agitated by the vehement desire to know which among them is he who will betray his master ; in which agitation, however, no mean or indecent action can be observed. In short, by profound thought, Leonardo had arrived to such a



[The Last Supper, after Leonardo da Vinci.]

degree of perfection that it seems impossible to speak as highly of him as he deserves, and much more impossible to imitate him."

When Leonardo undertook this his great work, he commenced with the Apostles, employing on them all that his genius suggested to make the expression perfect. But when he came to the person of Christ, he could find nothing so much superior to the character of the other heads as to represent worthily the sublime idea he had conceived of the Son of God; and, in consequence, in all the subsequent period of his life, it was never finished by him. It was only a sketch when he died. This anecdote recalls that of the ancient painter, who expressed by a veil the grief of Agamemnon, which he despaired of representing. The head of Judas was also left for a considerable time unfinished, from the difficulty the artist experienced in expressing that combination of malign dispositions which he wished to exhibit in his countenance. The deficiency is said to have been thus supplied:—the prior of the convent, a hard and harsh man, being displeased at the delay, complained to the duke on the subject, who spoke somewhat sharply about it to the artist, and he, to be revenged, drew an exact likeness of the prior in the person of the traitorous apostle.

In connexion with this picture, we find, in the 'Biographie Universelle,' an anecdote worth relating. When Bonaparte, at that time general of the French army in Italy, visited, in 1796, the hall of the church of "S. Maria delle Grazie," and saw there the "Last Supper" of Leonardo da Vinci, he immediately wrote upon his knee an order of the day to the effect that this place should not be employed to lodge the military. After the departure of the French army, the refectory was used alternately as a granary and a stable; but when Eugene Beauharnois became viceroy of Italy, he directed the place to be thoroughly cleaned out and set in order, and that a sort of platform should be raised to enable the spectator to view the picture more nearly.

Leonardo remained at Milan, after that city had been taken by the French under Louis XII., who treated the artist with much consideration. But he was induced, by the subsequent events of the war, to return to Florence, where he found Michael Angelo exercising his profession with great reputation and success. The rivalry and bitter feeling which arose between them is much to be regretted; and it is asserted that Michael Angelo did not treat the venerable artist with that consideration to which he was entitled. The result of this rivalry was a trial of skill between them, Leonardo painting a cartoon representing the defeat of Nicolo Piccinino, one of the greatest generals of Italy; and Michael Angelo another, which had for its subject an episode in the siege of Pisa by the Florentines. Such high excellence was exhibited in both these performances, that good judges hesitated to say to which the preference was due. But when it is considered that Leonardo was then an aged man, while Michael Angelo was in the prime of life, it was surely a sufficient praise to say of the former that he was not overcome. These cartoons were destroyed in the wars of which Lombardy was long the theatre; but though materials still exist for instituting a comparison between these two very eminent painters, we can only here state that Leonardo certainly possessed inventive power in a more eminent degree, while, in the universality of his talents, perhaps few men in any age have surpassed him. We can understand and sympathize in the feeling which provoked him to say to his rival, "I was already famous before you existed."

The disagreement with Michael Angelo made the residence of Leonardo at Florence so uncomfortable, that he was glad of an opportunity of going to Rome with Giuliano de' Medici, who was proceeding to that

city to assist at the coronation of his brother Leo X. It seems, however, that the pontiff had been prejudiced against the illustrious author of the "Last Supper," the slow and scrupulous execution of which he criticised with much affectation. It is related that the pope went one day to visit the great artist, and found him busily occupied in some chemical processes, the object of which was to obtain a new kind of varnish. "This man," remarked Leo, "never finishes anything, because he thinks about the end of his work before it is begun." In this observation there would have been some truth if one who laboured for immortality could be too careful and exact. Leonardo was certainly slow in finishing his works; for his object was less to do much than to do well.

Discouraged by his cold reception at Rome, Leonardo returned to Florence, and proceeded from thence to Parma and Milan, where he listened to the proposals of Francis I., and towards the end of 1515 decided on proceeding to France. The king, then at Fontainebleau, gave him the most honourable reception, and lodged him at the palace of Amboise, where he remained until his death, which took place on the 2nd of May, 1519. It is commonly said that he expired on the bosom of the king; but as the court was at that time at St. Germain's, an expression to that effect in the epitaph of Leonardo probably means no more than a figurative allusion to his death under the friendly roof of Francis I.

MEHMANDARS.

STRANGERS of any consideration travelling in Persia are furnished with an officer called a *mehmandar*, whose business it is to provide for their accommodation on the road. The rank and authority of the mehmandar varies with the consideration due to the party he attends. Princes of the royal blood have acted as mehmandars to English embassies. Of whatever rank however, these officers are armed with very great powers, which, as they are seldom moderately exercised, are very obnoxious to the people, and, in frequented roads, press heavily on their resources. They are authorized to claim for themselves, and the parties they escort, food ready dressed, and provender for the cattle; they can oblige the most respectable inhabitants to vacate their own houses for the reception of the strangers; and they possess, or at least exercise, the power of making the people give them such horses as they fancy, in the place of their own. For all this, so far is any payment from being made, that the poor people may think themselves happy if the mehmandar does not exert his formidable powers in extorting money from them, either with or without a pretext. The consequence of this system is, that some of the finest villages in the empire, placed in the most eligible and fruitful situations which it affords, are soon depopulated if much exposed to such visits, as the inhabitants then forsake their pleasant homes for more remote situations.

The first occasion which the writer of this article had of becoming acquainted with a mehmandar was on leaving the fortified town of Shousha in the Karabagh, when the Russian commandant appointed a Tartar mehmandar to accompany his party to the Persian frontier. The conductor thus supplied was a fine young man, well mounted, splendidly dressed, and fiercely armed. As during this part of the journey there were few or no villages, and we uniformly encamped in the open air, usually near some river, the services of this mehmandar presented no such obnoxious circumstances as we have mentioned; but were limited to regulating the order and direction of our march, to indicating eligible situations for the mid-day halt, or the evening encampment, and to furnishing information concerning the various objects we saw.

He accompanied us to the Persian side of the Araxes, and, being then gratified with a pecuniary present, and with a certificate that his behaviour had been satisfactory, and that he had conducted us safely to the appointed place, left us to prosecute alone our journey through Azerbaijan.

When we left Tabreez, the capital of that province, another mehmandar was appointed to attend our party to the Turkish frontier. This person was entirely different both in conduct and personal appearance from the former. He was an older man, not so well dressed or mounted, the possessor of a very fine beard, and of a countenance exhibiting a character somewhat rough and very decided. Ali (which was his name, as it is that of perhaps one-third of all the males in Persia) endeavoured to make himself useful and agreeable to us; but his exhibitions of zeal in our service were so ill-advised as to occasion far more difficulty than his presence prevented. We had stipulated that, on all occasions, we would pay for our food and accommodation; and that, where a place afforded a khan, he should not claim admittance for us to a private house.

On approaching the termination of a day's journey, it was the custom of the mehmandar to gallop on before us to provide for our accommodation; and, on our arrival, we usually found him engaged in some unpleasant transaction or other. Among such we remember that, on entering the caravanserai in the town of Mando, we found Ali in a foam of rage, and engaged in plying the terrible Persian horsewhip on the shoulders of an elderly merchant of respectable appearance, whose offence was this:—the mehmandar, on examining the rooms of the caravanserai through the windows, had selected that for our accommodation which this man already occupied; and as he seemed unwilling to relinquish his quarters, and delayed to open the door, Ali broke it down; and then, conceiving that he did not exhibit sufficient alacrity in clearing out the apartment, began to belabour him in the manner described. The man took the chastisement with inexpressible meekness as a customary circumstance, and exhibited much surprise at our interposition in his behalf.

Shortly after this transaction we entered Koordistan, and we hoped that his knowledge of the fierce and passionate character of the Koords, and their hatred to the Persians, would make our mehmandar more guarded and moderate than he had been among his own countrymen. We were disappointed. After a long and tiresome ride through incessant rain, we arrived one evening in sight of the Koordish village of Adschappa, and the mehmandar, as usual, galloped on to prepare for our reception. When we came up we found the whole village in an uproar; and proceeding, saw the mehmandar in the court of a cottage, standing with his back to the wall, and surrounded by resolute-looking men,—the long, knotted, and dangling cords of whose turbans gave them a particularly wild appearance,—clamouring vehemently with our conductor, against whom they seemed highly excited; while, somewhat more aloof, the women screamed, and the dogs barked, in the chorus of abuse. On our approach to the scene of action the excitement appeared to increase. We were forcibly beaten back with clubs on attempting to ride into the yard. Ali himself received several blows; and some women, who had mounted the wall behind him, threw down stones upon his head. He was at last so irritated that he drew his sabre, on which several of the Koords drew their long yataghans and pressed in upon him. On this, the gentlemen of our party dismounted, and interposed, in a conciliatory manner, between the parties; and, though unarmed, succeeded in inducing them to put up their weapons, and in somewhat allaying the tumult. This was, perhaps, the

more readily done as the Koords felt they were too near Tabreez to escape punishment if any serious injury were received by our party; and, on the other hand, we knew that we should all be sacrificed if a single Koord were killed, or even wounded, by the mehmandar. This affray had been occasioned by his insolence and indiscretion. On his arrival he had selected the best house in the place, and ordered the occupants to clear it out for our reception. To this no objection was made: but thinking that this labour was not performed with sufficient alacrity, he began to horsewhip the women, on which they ran away and complained to the men, who assembled and assaulted him in the manner described. "We are not Persians, to bear such treatment!" was their frequent exclamation on this occasion. We decidedly took part with them, and freely censured the conduct of the mehmandar, at the same time explaining that it was our custom always to pay for our provisions and accommodation. The man, however, whose women had been maltreated, would not admit us into his house, and we remained in the midst of the village, under a heavy rain, despairing of obtaining shelter for the night, when one man took pity upon us, and invited us to share with his family and cattle the scanty accommodations of his cabin.

This mehmandar conducted us to the town of Sulimanieh, which is governed by a Turkish pasha, who, when we left it, appointed a very stately person, with several servants in his train, to escort our party to Bagdad. We had before this been very much at the mercy of our muleteer, a rough, white-bearded old man, who cared far more about his cattle than about their riders. But he was obliged, with a very ill grace, to become a mere cypher under our new conductor, whose servants took a singular delight in horsewhipping him when any thing amiss in the caravan afforded them an excuse. They were Koords, and a Koord rarely omits any safe opportunity of displaying the hatred with which he regards a Persian. Before the power of Ibrahim, our new mehmandar, all difficulties vanished: the best accommodation was ready for us, and the best food was forthcoming. In one village we were lodged in the mosque, Christians as we were, while the people assembled at the stated hours to their prayers on its roof. Ibrahim at first would allow us to pay nothing. He said we were the guests of the Pasha, and he dared not permit us to incur expense. We were, however, so much distressed to see the heavy countenances with which the poor people brought to our lodgings their rice, bread, fowls, eggs, and fruits, that we again insisted very strongly on our right to pay for what we required. We carried the point; for a sudden thought seemed to strike the mehmandar, which induced him to withdraw his opposition, saying, "After all, the law for the English is, that they may do what they like." We observed, with surprise, that the villagers expressed no satisfaction when informed that we intended to pay for what they supplied; but we had afterwards cause to believe that our conductor obliged them to deposit in his privy-purse the money they received in payment from our party.

Circumstances such as these we have detailed exhibit, perhaps more forcibly than the history of depopulated cities, the miseries which invariably connect themselves with the minutest actions of a despotic government. Because it is the will of a person in authority that attention should be paid to travellers (a just and wise thing in itself), the sanctities of private life are violated, and the unhappy people are made to feel that nothing which they possess is their own. Europe, during the feudal ages, was not much better off. Even the most civilized people have had a long and arduous struggle to cast off the hereditary bondage in which they lived.

SONGS OF THE SEASONS.

I. THE SPRING SONG.

WINTER, Winter, is hurrying away;—
 There's a leaf on the brier and a bird on the tree;
 And the butterfly flits in the noon-tide ray,
 And the furze hath spread its flowers for the bee:
 The lark ventures up in the pearly sky,
 The almond-bloom shows its faint blush to the sun,
 A wandering swallow here dares to fly,—
 The jolly young Spring his kingdom hath won.
 Winter, Winter, is hurrying away.

Winter, Winter, will still remain;—
 There's a frost on the grass and a blight on the flower;
 And the beetle is locked in the earth again,
 And the sheep gather close in the morning shower:
 The thrush is silent that sang before,
 The violet shrinks to her leafy nest,
 The mountain runnels in torrents roar,—
 The pale Spring hides in old Winter's breast.
 Winter, Winter, will still remain.

Winter, Winter, is over and gone;—
 There's a dew on the lily, a scent in the rose,
 And the moth is out in the sunny morn,
 And the May-fly dies in the daylight's close:
 The stock-dove is building in many a bower,
 The trees and the insects breathe again,—
 There's a charm in the day and a joy in the hour,—
 The steadfast Spring hath fixed his reign.
 Winter, Winter, is over and gone. C. II.

TRANSMISSION OF NEWSPAPERS BY POST.

(From a Correspondent.)

WITH reference to the recent Number of the 'Penny Magazine,' containing a 'History of the Rise and Progress of the Post Office,' it may not be uninteresting, at a period when the circulation of newspapers through that establishment has reached to such an unprecedented extent, to give some account of the origin of it, so far as it is known, and to trace the progressive facilities which have been afforded. During the Protectorate, a memorial was presented from certain officers of the post office, praying for the protection of a privilege, which had always been enjoyed by them, of forwarding newspapers by the post, which proves that the circulation of newspapers was on a systematic footing prior to the year 1650. In the year 1763 an Act was passed permitting newspapers to be sent and received free by members of both Houses of Parliament, provided they "were signed on the outside by the hand of any member," or "directed to any member at any place whereof he should have given notice in writing to the Postmaster General." This Act also recognized the ancient right of franking newspapers by officers of the post office, and certain clerks of the secretaries of state. In the years 1768 and 1793, Acts were passed authorizing compensations to the clerks of the secretaries of state for the loss sustained by them "in consequence of the methods in which newspapers" were then "dispersed into the country," and the sending and receiving of newspapers by members of parliament was limited to the period of the sitting of parliament, and forty days before and after the session. At the commencement of the present century, the regulation requiring members of parliament to give notice of the place to which newspapers might be addressed to them fell into disuse, and if a member's name only appeared upon the cover, they were sent free to all parts of the United Kingdom.—The free transmission of newspapers by the post was thus virtually thrown open to the public, and the origin of the establishments of agents amongst printers, booksellers, &c. for the supply of newspapers by post, may be dated from this period. In the year 1825 a law was passed rendering the use of a member's name unnecessary, and thus the transmission of newspapers by post became entirely open to the public, upon the condition that they "shall be sent without covers, or in covers open at the sides, and shall not contain any other paper or thing whatsoever;" also "that there shall be no writing other than the superscription upon such printed paper, or upon the cover thereof;" and in the event of these restrictions not being duly observed, the whole of such packet is "to be charged with treble the duty of postage." It appears that in the year 1782, there were 3,070,000 newspapers sent through the post office; in 1796, 8,600,000; in 1831, 12,200,000; and in the last year, 11,600,000. The

average number of newspapers sent from London daily may be about 40,000, and instances have occurred, at periods of unusual interest, of above 100,000 newspapers being sent by the post from the metropolis in one day.

Capability greater than Performance.—Men are often capable of greater things than they perform. They are sent into the world with bills of credit, and seldom draw to their full extent.—*Horace Walpole.*

Richard Cromwell.—The second protector, it is well known, was produced as a witness at the age of near ninety, in Westminster Hall, in a civil suit. It is said that the counsel of the opposite party reviled the good old man with his father's crimes, but was reproved by the judge, who ordered a crier to be brought for the venerable ancient; and that Queen Anne, to her honour, commended the judge for his conduct. From Westminster-hall, Richard had the curiosity to go into the House of Lords; and, standing at the bar, and it being buzzed that so singular a personage was there, Lord Bathurst, then one of the twelve new-created peers, went to the bar and conversed with Mr. Cromwell. Happening to ask how long it was since Mr. Cromwell had been in that house,—"Never, my lord," answered Richard, "since I sat in that chair,"—pointing to the throne.—*Horace Walpole.*

The Imagination.—The faculty of imagination is the great spring of human activity, and the principal source of human improvement. As it delights in presenting to the mind scenes and characters more perfect than those which we are acquainted with, it prevents us from ever being completely satisfied with our present condition, or with our past attainments; and engages us continually in the pursuit of some untried enjoyment, or of some ideal excellence. Hence the ardour of the selfish to better their fortunes, and to add to their personal accomplishments; and hence the zeal of the patriot and the philosopher to advance the virtue and the happiness of the human race. Destroy this faculty, and the condition of man will become as stationary as that of the brutes.—*Dugald Stewart.*

Slate.—Experiments have been made to ascertain the applicability of slate to other uses than the covering of houses. The result has been the discovery that, as a material for paving the floors of warehouses, cellars, wash-houses, barns, &c., where great strength and durability are required, it is far superior to any other known material. In the extensive warehouses of the London Docks it has been used on a large scale. The stones forming several of the old floors, having become broken and decayed, have been replaced with slate two inches thick; and one wooden floor, which must otherwise have been relaid, has been cased with slate one inch thick; and the whole have been found to answer very completely. The trucks used in removing the heaviest weights are worked with fewer hands. The slabs being sawn, and cemented closely together as they are laid down, unite so perfectly, that the molasses, oil, turpentine, or other commodity which is spilt upon the floor, is all saved; and, as slate is non-absorbent, it is so easily cleaned, and dries so soon, that a floor upon which sugar in a moist condition has been placed may be made ready for the reception of the most delicate goods in a few hours. Waggon or carts, containing four or five tons of goods, pass over truck-ways of two-inch slate without making the slightest impression. In no one instance has it been found that a floor made of sawn slate has given way; in point of durability, therefore it may be considered superior to every other commodity applied to such uses. The consequences of this discovery have been that full employment is found in the quarries which produce the best descriptions of slates, and that additional employment has been given to the British shipping engaged in the coasting trade.—*From a Correspondent.*

* The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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THE TAMARIND.



[Tamarind-Tree—*Tamarindus Indica*.]

THE Tamarind-tree is a native both of the East Indies and of tropical America, and probably also of Arabia and some parts of Africa. It was very early introduced into this country; for Gerard, whose 'Herbal' was published in 1633, makes mention of it as growing here. It does not often flower in England, though it has done so in the Royal Gardens at Kew: it is, however, a common ornament of our hot-houses. Where it is a native, it grows to be a large tree, and affords excellent timber—heavy, firm, hard, and durable. The stem is large, covered with brown bark, and divides into many branches. The leaves are not unlike those of the mountain ash, only they are of a brighter green, and the leaflets are closer to the mid-rib: the leaflets are small, but the number in a leaf (sixteen or eighteen

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pairs in a leaf, with an odd one at the extremity) gives the tree a very light and elegant appearance. The flowers come out from the sides of the branches in loose bunches, and are followed by the pods, of which there are, generally, about five or six in a bunch. The pods of the West India tamarinds are, on an average, about three inches long, and contain about three seeds: those from the East are about double the size.

The pulp, in which the seeds of the tamarind are inclosed, contains more acid than any other vegetable substance, in a natural state, with which we are acquainted; and, therefore, it is used both for sharpening food and drink, and for medicinal purposes. Niebuhr says, "The tamarind is equally useful and agreeable. It has a pulp of a vinous taste, of which a wholesome

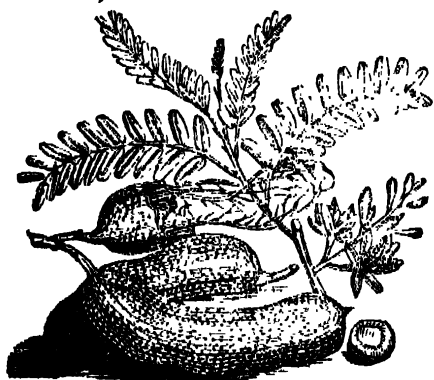
refreshing liquor is prepared; its shade shelters houses from the torrid heat of the sun; and its fine figure greatly adorns the scenery of the country." Its refreshing properties have given it a place in our poetry:

"The damsel from the tamarind-tree
Had pluck'd its acid fruit,
And sleep'd it in the water long;
And whose drank of the cooling draught
He would not wish for wine *."

Mandelslo, an old traveller, says, that as soon as the sun is set, the leaves of the tamarind close up the fruit to preserve it from the dew, and open as soon as that luminary appears again:—

"'Tis the cool evening hour:
The tamarind from the dew
Sheathes its young fruit, yet green †."

The East India tamarinds are preserved without sugar, and, therefore, they are the best for medicinal use. About forty tons of tamarinds are annually imported into Great Britain. (From *'Vegetable Substances: Fruits.'*)



[Leaf, Flower, and Fruit of the Tamarind.]

MUSIC FOR THE MANY.—No. II.

We have already said that Shakspeare wrote words for the music of Thomas Weelkes. "This admirable writer," says Ritson, "composed the most beautiful and excellent songs, which no one (so far as we know) can be said to have done before him †; nor has any one excelled him since. * * In the plays of this favourite of the muses, we find a number of fragments of old songs and ballads, which will afford us infinite amusement."

Every reader of Shakspeare must remember how numerous are these fragments and snatches of song, and on how many occasions he shews his love for the popular ballads, and the simple, touching music (which was already old in his time) of his native land. He has, however, never expressed this feeling more exquisitely than in these lines:—

"Now, good Cesario, but that piece of song,
That old and antique song, we had last night.
Methought it did relieve my passion much,
More than light airs and recollected terms
Of these most brisk and giddy-paced times.

* Thalaba. † Ibid.
O fellow, come! the song we had last night:—
Mark it, Cesario; it is old and plain:
The spinsters and the knitters in the sun,
And the free maids that weave their thread with bones,
Do use to chant it; it is silly sooth,
And dallies with the innocence of love,
Like the old age ‡."

One of Shakspeare's especial favourites was John Dowland, who was a charming composer, as his madrigal, 'Awake, sweet Love,' evinces; and also a great performer on the lute, and who may often have

* Thalaba. † Ibid.
‡ The critic properly excepts 'The Passionate Shepherd to his Love,' by Marlow, who wrote before Shakspeare. Of this admirable song, which begins 'Come live with me, and be my love,' we shall speak hereafter. § 'Twelfth Night.'

regulated the poet with the strains he loved. The dramatist thus addresses him on one occasion—

"If Music and sweet Poetry agree,
As they must needs, the sister and the brother,
Then must the love be great 'twixt thee and me,
Because thou lov'st the one, and . the other *."

Besides Shakspeare, two other of our old poets speak of the prevalence of music among the people of their times. The accomplished Lord Surrey says in one of his poems—

"My mother's maids, when they do sit and spin,
They sing a song;"

and Bishop Hall, who was angry at the number of ballads and madrigals published, says that they were

"Sung to the wheel, and sung unto the pail †;"

that is, sung by maids spinning and milking or fetching water. Another satirical poet would lead us to believe that in his day the practice of serenading with harps and lutes and "songs of melody" was quite common in the streets of London ‡.

Popular music, which improved and extended itself in England during the reigns of Elizabeth and James I., was, in common with the rest of the fine arts, much encouraged during the tranquil part of the reign of Charles I. Before the commencement of the fearful struggles between Charles and the Commons, considerable numbers were added to the lists both of song-writers and composers; and the love of music was widely spread among the people, who kept alive the melodies and songs of the preceding reigns. Not to refer to other records of the times, we have sufficient proof that this was the fact in that delightful old book, 'The Complete Angler; or, the Contemplative Man's Recreation,' the author of which (Isaac Walton) was an accurate observer of the manners and customs of the day. His pictures, or descriptions, indeed, have that convincing charm which can scarcely exist apart from truth and fidelity of representation. In his time, then, honest Isaac, bent on his favourite pastime of angling, took to the green fields on the banks of the river Lee, in the neighbourhood of London, which fields and which river are as bright and pleasant as ever, and much frequented, on summer holidays, by the industrious inhabitants of the east and north-east parts of our immensely-grown metropolis. In these fields, Isaac mentions, as a common occurrence, that he was wont to meet a handsome milkmaid, who had cast away all care and sang like a nightingale, her voice being good and the ditties fitted for it. And what was the nature of the songs sung by this lovely damsel? In the quaint words of Isaac Walton, "She sang the smooth song which was made by Kit Marlow, now at least fifty years ago; and the milkmaid's mother sang the answer to it, which was made by Sir Walter Raleigh in his younger days." Now these two songs, of which our old author gives the words as having been sung to him and a brother fisherman by the poor women, were written in the time of Queen Elizabeth, and were those exquisite lyrics, 'Come live with me and be my love,' and 'If all the world and love were young;' two poetical compositions which have never been surpassed to our times, and of which Isaac says in his, "they were old-fashioned poetry, but choicely good; I think, much better than that now in fashion in this critical age."

In another part of these dialogues, in which he describes his habitual holiday life, when he asks the milkmaid to sing she says, What shall it be?—'Come, Shepherds, deck your heads,' 'As at noon Dulcinea rested,' or 'Phillida flouts me,' which are three other songs of an elegance considered much above what is

* 'Passionate Pilgrim.'

† The poem containing this line was published in 1597.

‡ Barclay's 'Ship of Fools.'

now termed the taste of the vulgar. At the end of a day's sport, Isaac says to his comrade, who is a novice in the life of an angler,—“I'll now lead you to an honest ale-house, where we shall find a cleanly room, with lavender in the windows, and twenty ballads stuck about the walls.” In this “cleanly room” the fishermen wile away the evening by singing songs and duets. In fact, music and ballads, and snatches of old poetry, seem scarcely ever out of the heads of these honest anglers. The pleasant look of the meadows, and the sweet smell of the earth, invariably call forth a song, or a quotation of poetry; every night, when their frugal supper is discussed, they sing solos or duets, and a casual dropper-in at the “honest ale-house” is expected, as a matter of course, to be able to take a part,—to sing the treble or the bass. Isaac Walton also talks of catches, or, as he calls them, “ketches.” At the end of his book (in the old editions) he gives the words and music of one of his favourite duets, which relates to the pleasures of an angler's pursuits, and begins, ‘Man's life is but vain, for 'tis subject to pain.’ The music, by Mr. H. Lawes, is simple and pretty, agreeably blending two voices.

All the songs and the poetry quoted in the ‘Complete Angler,’ and mentioned as being then as familiar as household words, are characterized by good taste and purity of thought. Among the many beautiful things Isaac Walton introduces, are, that touching elegy, ‘Sweet day so cool, so calm, so bright*,’ by the Rev. Mr. Herbert, some verses by Dr. Donne, and the virtuous and accomplished Sir Henry Wotton's song for the poor countryman, beginning,—

“Fly from our country pastimes, fly,
Sad troops of human misery!
Come, serene looks,
Clear as the crystal brooks,
Or the pure azure heaven that smiles to see
The rich attendance on our poverty †!”

Now, Isaac Walton figures himself as one of the people, and only describes the pastimes of homely men like himself. He is not a man of courts and drawing-rooms and fashionable assemblies; he rolls along in no luxurious equipages; he has no expensive amusements; he is one “who, long in populous city pent,” betakes himself to the roads and the fields, and the river's bank, and to the pure open air of heaven. Unattended and on foot, he leaves the town behind him, on some fine holiday, and walks over the hills to Tottenham, and thence to the pleasant Lee, with his fishing-rod in his hand, his basket on his shoulder, and, mayhap, a book of “smooth songs,” or other poetry, in his pocket. He angles as long as it is opportune or pleasant so to do; and, as a rational and soothing amusement for the rest of his holiday, he indulges in music and song.

The earliest edition we have seen of Isaac Walton's book was printed in 1653, during the Commonwealth, and three years after the execution of Charles I. It is probable it refers to earlier and more cheerful times; but it is also probable that humble, happy, philosophic, and, we may add, truly pious individuals like himself, might have found the means of indulging in their innocent pleasures even during the horrors of the civil war and the intolerance of puritanism. Certain it is, however, that, at this time, popular music received a blow in England. In the eyes of the over-strict Puritans, every amusement was a profanation and an immorality; and singing of songs and dancing were held to be among the worst of these. In one of Cromwell's ordinances, dated 1656, it is enacted that, “if any of the persons commonly called fiddlers or minstrels shall at any time be taken playing, fiddling, and making

music in any inn, alehouse, or tavern, or shall be taken proffering themselves, or desiring or entreating any to hear them play or make music in any of the places aforesaid,” they are to be “adjudged, and declared to be rogues, vagabonds, and sturdy beggars.”

Allowing full force to the mistaken religious zeal of the period, we must, however, mention, that there were other motives for this persecution which were likely to have quite as much influence in the minds of Cromwell and his party. The gay wits and the song writers of the day were all Royalists, and were continually attacking the gloomy Roundheads, and making efforts to circulate their satirical pieces through the nation. Then, as has happened since in different countries of Europe, certain tunes, even without any words, were considered as being identified with political principle or party, and as likely to keep alive, and even lead to dangerous ebullitions, the prejudices or feelings of those to whom they were addressed. Again, as excess on one side provokes excess on the other, the Royalists ran as much beyond the circle of proper conviviality as the Puritans kept within it, and thus gave the latter a plausible motive for suppressing even the most rational and innocent amusements.

[To be concluded in our next.]

THE PHYSICAL POWERS OF SAVAGES.

THERE has seldom probably been a period in which persons have not been found, who, from what they saw on a cursory view, were inclined to consider the savage state of man in many respects preferable to the civilized. But there never was a period in which this opinion found advocates so many, so zealous, and so able, as about the middle of the last century. It is not our intention to enter into the question. This is not necessary now, when the opinion is only met with occasionally, in some book of fiction; and is at present only regarded as one of the infatuations to which the human mind seems almost periodically subject. It may, nevertheless, not be uninteresting to state some of the impressions on which this opinion was founded, and some of the facts which resulted from the agitation of the question.

The advocates for the savage life relied much on the greater acuteness of physical sense, the greater speed, the greater strength, in the savage than in the civilized man; and they considered their argument established by the inference that civilization tended to neutralize his natural powers. It is this part of the argument, as the most practical, to which we shall limit our attention.

Some of the advocates of civilization endeavoured, we think very unnecessarily, to dispute the alleged facts. But it is, for instance, certain that Kalmucs, Arabs, and other inhabitants of deserts or open plains, can perceive very minute objects at a distance perfectly astonishing to an European. The same people, by laying themselves on the ground and applying the ear close to the soil, can distinguish the very remote trampling of horses, the noise of an enemy, of a flock of sheep, or even of strayed cattle. The sense of smelling is of corresponding acuteness. There are few Kalmucs, and other barbarous or savage people, who cannot tell, by applying the nose to the hole of a fox or other quadruped, whether the animal is within or not: and on their military expeditions they can detect the smell of a camp or of a fire long before any of his senses would convey such information to an European. It is also affirmed, that savages have much stronger powers of mastication than Europeans; and that their memories are far more retentive. The superior strength of the uncivilized man seems to have been less disputed than the preceding facts. It is, however, singular that this point, which

* This song has been given in No. 24, vol. i., of the ‘Penny Magazine.’

† Sir Henry Wotton and Dr. Donne wrote in the time of James I.

was considered the least controvertible, is the only one which the observations of travellers and physiologists have not tended to establish. The experiments of M. Peron on savages of different nations, with the dynamometer, though they cannot be considered as affording materials for a certain and general conclusion, are sufficiently curious and interesting to have their results briefly stated.

The dynamometer is an instrument designed for the purpose of measuring the quantity of force exerted by men or animals. The one employed by M. Peron (that of Regnier) consisted of an elliptical spring one foot long and rather narrow. It was covered with leather that it might not injure the hand that compressed it. The strength of the spring was such as to exceed that of any animal to which it might be applied; and it contained a mechanism with an index which indicated the quantity of the power by which the spring was compressed. M. Peron was the first to whom the idea occurred of employing this instrument for the purpose of comparing the strength of the savage with that of the civilized man; and in the voyage to the southern hemisphere, undertaken by the order of Buonaparte, the following results were obtained. The manual power, expressed in French kilogrammes, was—

Van Diemen's Land . . .	50.6
New Holland . . .	51.8
Timor . . .	58.7
French . . .	69.2
English . . .	71.4

M. Peron could never induce the natives of Van Diemen's Land to try the strength of their loins; but the result, in respect to the others, expressed in French myriogrammes, was—

New Holland . . .	14.8
Timor . . .	16.2
French . . .	22.1
English . . .	23.8

As these experiments, so far as they went, showed the most savage people to be the weakest, M. Peron was certainly entitled to his conclusion, "that the development of physical strength is not always in a direct ratio to the want of civilization, nor a necessary consequence of the savage state."

In dealing with the general question, however, it is not necessary to have any evidence of the inferior strength of savage tribes to come to a second conclusion upon the advantages of the two states of civilization and uncivilization. Allowing to the savage all the perfections claimed for him in other physical qualities, he is excelled in acuteness of vision by the eagle and hawk; in the power of hearing, by hares, horses, asses, and other animals having large ears which they can erect; in smelling, by dogs and many other animals; in memory, by dogs and horses; in mastication, by most animals; and in swiftness how many quadrupeds excel him—how many in strength! In admitting the superiority of the savage in merely physical powers over the civilized man, it is unnecessary also to account for the peculiarities in the conformation of his organs. Some writers maintain that the olfactory and optic nerves are uncommonly large in the African; and that the Kalmucks have very large ears, which stand out considerably from the head. We think it, however, quite unnecessary to endeavour thus to account for any superior vivacity or power which may be found to exist in the organs of sense. Exercise alone seems to us quite sufficient to account for the difference, and we consider that the physical faculties both of the civilized and uncivilized man have just that degree of power, not less or more, which their respective circumstances have called forth. The circumstances of the savage are such as to require the utmost exertion of the organs of sense—hence his animal superiority. The circumstances of the civilized man are such as to demand the greater

exercise of the mental powers; and hence his superiority in all that essentially distinguishes the human from the brutal nature. In the case of hearing, for instance, few sounds ever break the silence of the vast solitudes which savages usually frequent; and they, therefore, have been more in the habit of attending to low and distant sounds, than one whose organs have been developed amidst the din of cities, and to whom such exquisite sensibility would, in his ordinary circumstances, be an absolute nuisance. In the same manner, if we consider M. Peron to have proved the savage to be inferior in bodily strength to the civilized man, it may be attributed to the want of that exercise by which their other physical powers are perfected. It would have been desirable that we should have been informed whether the Europeans, with whom he compares them, were gentlemen, sailors, artisans, or convicts, between whom he would probably have found a difference of aggregate strength, or in the mode of its exhibition, equal to the extremes in his tables. We fear, although it may be easy to find the difference of power between one man and another in some particular developments of strength, it must be extremely difficult to form a true estimate of the aggregate difference. One man is stronger than another in the legs, another in the arms; one man can drag a great weight after him, another can haul a rope with force, and another can carry a heavy load upon his head or back. Some, again, who have not been much accustomed to labour, are capable of immense exertion for a short period; but are quite unequal to the moderate but continuous exertion in which others find no difficulty. And so, generally, it is less perhaps in aggregates of power that men excel one another, than in some particular developments. For instance, the Arabs of the desert, of whose powers of vision such wonderful things are related, do not at all equal Europeans in the perception of near objects.

Separately from any such idle controversies as that to which we have alluded, it is interesting to study the very remarkable law of adaptation on which that most universal of beings—man—is formed, both in his external and internal organization; and through which he is enabled to inhabit all climates, to subsist on all aliments, and to bear all modes of life. It is an employment no less profitable than interesting to contemplate the same being in one part of the world approximating in faculties and habits to the beasts of his native forest or wilderness; and, in another, forming a part in a great and complicated system, in which innumerable agencies are employed to minister to the wants and comforts of each day, and in which it becomes more or less incumbent on every man to employ his powers for the general welfare.

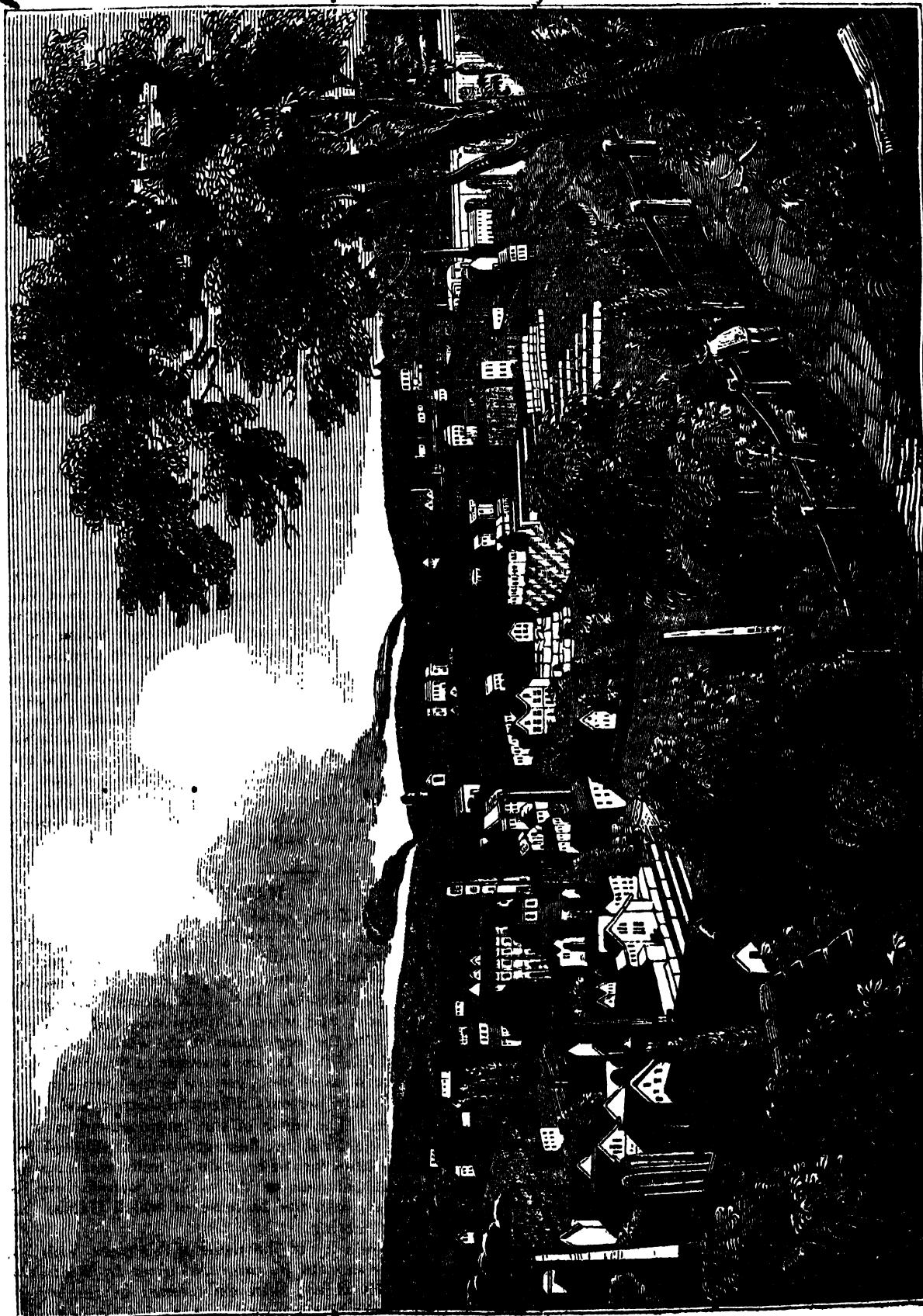
HALIFAX.

THE parish of the same name in which Halifax is situated is of greater extent than the whole county of Rutland, being 17 miles in length and averaging 11 miles in breadth, comprising an area of 124 square miles, or 79,200 acres. The soil is naturally sterile and unproductive; and when Camden travelled in Yorkshire in 1579, the population of the whole parish did not exceed 12,000. It now amounts to 92,650; and a soil has been, as it were, created in the sterile wilderness, which now presents a fruitful district and a populous race. The cause of this improvement must be sought in the local circumstances which afforded important facilities for the erection of mills and factories on the establishment of the woollen manufactures in this country, with the increase of which Halifax has gone on increasing.

The singularity of the name of this place renders it worth while to state its origin, as given by Whittaker. In the deep valley, then embosomed in the woods,

where the parish church of Halifax now stands, there stood anciently a hermitage dedicated to St. John the Baptist, the reputed sanctity of which attracted a great number of pilgrims from all quarters. Four ways, by which the modern town of Halifax is entered, still distinctly point to the church as their common centre; these were the roads by which the pilgrims approached the place of devotion, and hence the name of Halifax, or Holy Ways, *fax* being, in Norman-French, an old plural noun denoting "highways."

The town of Halifax is situated on the south-eastern declivity of a gently-rising eminence; but being inclosed by a chain of hills which stretch from east to south, it seems, on approaching in that direction, to stand in a deep valley. Being in the midst of numerous waters, particularly adapted for mills and machinery; near the common source of the rivers which, diverging from this point, flow towards the eastern and western seas; being also in the vicinity of the great wool districts of the county, and not far from an abundant



[Tops of Halifax, Yorkshire.]

supply of coals, it presented advantages for a seat of the woollen manufacture too obvious to escape notice. It has consequently become one of the principal seats of the cloth manufacture in the kingdom, and has also obtained a share in the manufacture of cotton. There seem to have been established some manufactures at Halifax so early as 1414; but they must have been very inconsiderable, as the site was only occupied by a village of thirteen houses in 1448. But the woollen manufacture gradually became considerable; and, in the reign of Henry VII., many Flemish manufacturers settled in this country, to which they were the more easily persuaded to resort by the distress they suffered in their own. The influence which this improvement had on the prosperity of Halifax is indicated by the fact that, in 1540, the number of houses had increased to 520. Many of the Flemings are conjectured to have settled at Halifax; and this supposition is strengthened by the similarity which exists in the dialect of the labouring classes there and in the Low Countries, particularly in Friesland, and hence the following distich:

"Goud brade, botter, and sheese,
Is gooid Halifax, and gooid Friese."

The extent and value of the woollen manufactures of Halifax, in the early periods of its history, may be estimated from a peculiar local law designed to afford protection to the clothiers from the depredations to which their goods were exposed during the progress of the manufacture. It was customary, as it still is, to stretch the cloth on racks, or wooden frames, to dry, as shown in our wood-cut. And being thus left all night, and liable to be stolen, the magistrates were invested with a jurisdiction to try and inflict capital punishment, in a summary manner, on all persons who stole property valued at more than thirteen-pence-halfpenny, within the liberties or precincts of the forest of Hardwick. Those charged with this offence were taken before the bailiff of Halifax, who forthwith summoned, as his assessors, the frith-burghers of the several towns within the forest, who instantly proceeded to the trial. They could convict the prisoner on three grounds only: if he were seized in the act of thieving; or with the stolen goods upon him; or, lastly, on his own confession. If the day on which the culprit was convicted happened to be the principal market-day, he was taken immediately, or, if not, on the first following market-day, to the scaffold in the market-place of Halifax, and there beheaded by means of a machine resembling the guillotine used in France during the Revolution. This was called "Gibbet Law," under which it is ascertained that, on an average, one execution took place every two years in the century preceding 1650; but on that year, the bailiff of Halifax being threatened with a prosecution, relinquished the custom, and the scaffold was taken down. The jurors, under this law, were not sworn; and Bishop Hall, in his 'Satires,' insinuates that they were not impartial:—

"Or some more strait-laced juror of the rest
Impannelled on an Halifax inquest."

We may, in this place, mention that the Earl of Morton, afterwards Regent of Scotland, while in England, in 1566, directed a model of it to be taken, and, on his arrival in Scotland, had one of similar construction made from it. The instrument was so long unused as to obtain the name of the "Maiden;" but, in 1581, the Earl himself was brought to the block, and suffered by the machine he had caused to be erected.

Placed by its situation out of the ordinary range of hostile armies, Halifax does not appear to have suffered much from the calamities of war. During the civil contests in the reign of Charles I., the town was garri-

soned by the Parliamentarians; and at that period a smart action took place at a spot in the neighbourhood, which retains the name of "Blood Field" to this day. The fidelity of Halifax to the Parliamentary cause was rewarded by the privilege of sending members to the House of Commons, both under the Parliament and the Protectorate. This privilege was withdrawn on the Restoration; and the town remained unrepresented until the provisions of the Reform Bill entitled it to send two members to the Legislature.

The present town of Halifax contains many handsome buildings,—principally stone structures,—but there are several of brick; and a few ancient edifices may still be perceived, the architecture of which consists of a frame-work of wood, the intervals being filled up with plaster or clay. From the mixture of stone and brick, and from the numerous small enclosures around the houses, the town presents, from a distance, a singularly varied and interesting appearance.

The church, dedicated to St. John the Baptist, is a spacious and handsome Gothic edifice, erected at different periods, the tower and steeple having been completed in 1470. The accommodation it afforded having, however, become insufficient for the increased population, a large and elegant new church, in the Grecian style of architecture, was erected in 1798, by the late vicar, Dr. Coulthurst. There are besides seven chapels for dissenters of different denominations; also a free school founded by Queen Elizabeth, a blue-coat hospital, and a theatre. The manufactures are carried on in the town and neighbourhood, and the beneficial effects of trade and industry are nowhere more strikingly exhibited. A continued range of thriving villages and country-seats extends over the whole of the immense parish, which now comprehends twenty-six townships, furnished with thirteen episcopal churches or chapels of ease.

The chief articles of manufacture are shalloons, taminets, moreens, shags, serges, baizes, coatings, and carpets; with narrow and broad cloths and kerseymeres, both for domestic use and for the army. It was some years ago computed that 10,000 pieces of shalloon alone were manufactured in this parish, considerable quantities of which were exported to Turkey and the Levant. Several cotton manufactories have been erected, and this branch of manufacture is on the increase. Excellent wool-ourds are also made in Halifax. In the neighbourhood large quantities of freestone have been dug, and sent to the metropolis for sale; slate of a superior quality is also found; and fuel for domestic purposes, and for the consumption of the various factories, is supplied from coal-mines at a short distance. It is to the abundant supply of this important article, which, in the use of the steam-engine, affords the same advantages as the numerous rapid brooks formerly furnished for mills, that the continued prosperity of Halifax must be mainly attributed. A weekly market is held on Saturdays, chiefly for the sale of woollen cloth. For the accommodation of the traders in this article, there is a large freestone edifice, called the Cloth Hall, occupying an area of 10,000 square yards, and divided into 315 apartments for the reception of goods, the quantity of which, exposed for sale at one time, generally amounts in value to 50,000*l*. Commercial intercourse between Halifax and Hull, as well as the eastern parts of England generally, is carried on by means of the Aire and Calder navigation; and with Manchester, Liverpool, Lancaster, and the west, a communication is furnished by the Rochdale canal. Halifax is 197 miles from London, and 42 from York. According to the returns of the last census, the newly-created borough, which includes the townships of North Oram and Ovenden, affords a population of 34,437.

NORWICH CASTLE.

THE Castle of Norwich stands near the heart of the city, and at some distance west from the cathedral. It occupies the termination of a long acclivity which enters the city from the south-east. The site of the castle is both the centre and the most elevated spot of the city; and, placed on that commanding eminence, the old fortress is seen from a great distance raising its massive front far above all the surrounding buildings. It stands nearly, but not quite, with its walls facing the cardinal points, the east and west ends being only a very little inclined towards the south and north respectively.

What is now, and has for many ages been, called the Castle, however, is merely the keep, or main tower of the entire structure. In its original state, the fortress no doubt consisted of several courts, all surrounded with buildings. The space over which it once extended can still be nearly ascertained, and appears to have been about twenty-three acres. There were three circular fortifications, each consisting of a wall with a deep fosse or ditch at its base. The spaces thus inclosed formed an outer, a middle, and an inner court, or ballium, as such divisions were properly called when of this peculiar form. Near the centre of the inner ballium, which occupied the summit of the hill, was placed the keep, as the principal part of the stronghold, and the refuge of its occupants, should they be driven from every other post.

A great part of the space which was once included within the castle is now covered with streets and lanes, and seems to belong to the town. It is said, however, that even the line of the outer ditch may still be partially traced by a close examination of the ground; or at least it might have been so not many years ago. The only entrance into the castle was by a bridge thrown over this ditch, at the north end of what is now called Golden-ball Lane, that is, at the south-east point of the circle. There was also a bridge over the second ditch, opposite to that over the first; but this, too, has been completely swept away. That over the last of the three ditches, however, still remains, and is unquestionably one of the most ancient structures of this description in the kingdom. It consists of the half of a circle of the diameter of forty-three feet three inches, and is partly built of bricks, a circumstance which has induced some antiquaries to regard it as of Roman erection. The bricks, however, are not such as were used by the Romans, but of the kind found in Saxon structures. At the inner termination of this bridge there were to be seen, some years ago, the remains of two round towers, each of about fourteen feet in diameter, by which it had been anciently guarded.

When Mr. King, in 1776, wrote his 'Observations on Ancient Castles,' printed in the fourth volume of the 'Archæologia,' and even, in 1793, when Mr. Wilkins prepared his 'Essay towards a History of the Venta Icenorum of the Romans,' published in the twelfth volume of the same collection, Norwich Castle was still roofed in and filled with apartments. In consequence, indeed, of its having been long used as the county-gaol, its interior arrangements had undergone many alterations; but still it was possible to trace their original disposition to a considerable extent. This Mr. Wilkins has done, and his 'Essay' is illustrated by numerous plans and other engravings, exhibiting the state of the different floors. The building is now, however, a mere shell, the interior partitions being entirely gutted out, and the roof removed. About forty years ago, a new building was erected to serve as the gaol, being that which in the view is seen attached to the east end of the far more majestic old keep. This annexation, of puny dimensions, and in an incongruous style of architecture, certainly disfigures, in no slight degree, the noble structure to which it is attached, and

injures the grand simplicity of its effect. If the castle could no longer be accommodated to the purposes of a place of confinement, there would seem at least to have been no necessity for sticking the new prison upon one of the ends of the old one. By this conjunction, both buildings are deformed.

The east end of the castle, the greater part of which is now in manner hidden from view, was the principal front of the building. Here was an oblong projection, measuring fourteen feet from the wall, by about twenty-seven in the opposite direction, which served as a sort of porch or outer tower leading to the greater stronghold. It adjoined the northern corner. The architecture of this exterior erection was more ornamental than that of the body of the castle, and seemed to indicate that it had been raised in a more recent age; on which account Mr. Wilkins has called it Bigot's Tower, after the nobleman in whose hands the place was after the Norman Conquest. It does not appear, however, that the tower had been traditionally known by this appellation. It was adorned by three arches from the east, and one at its northern extremity.

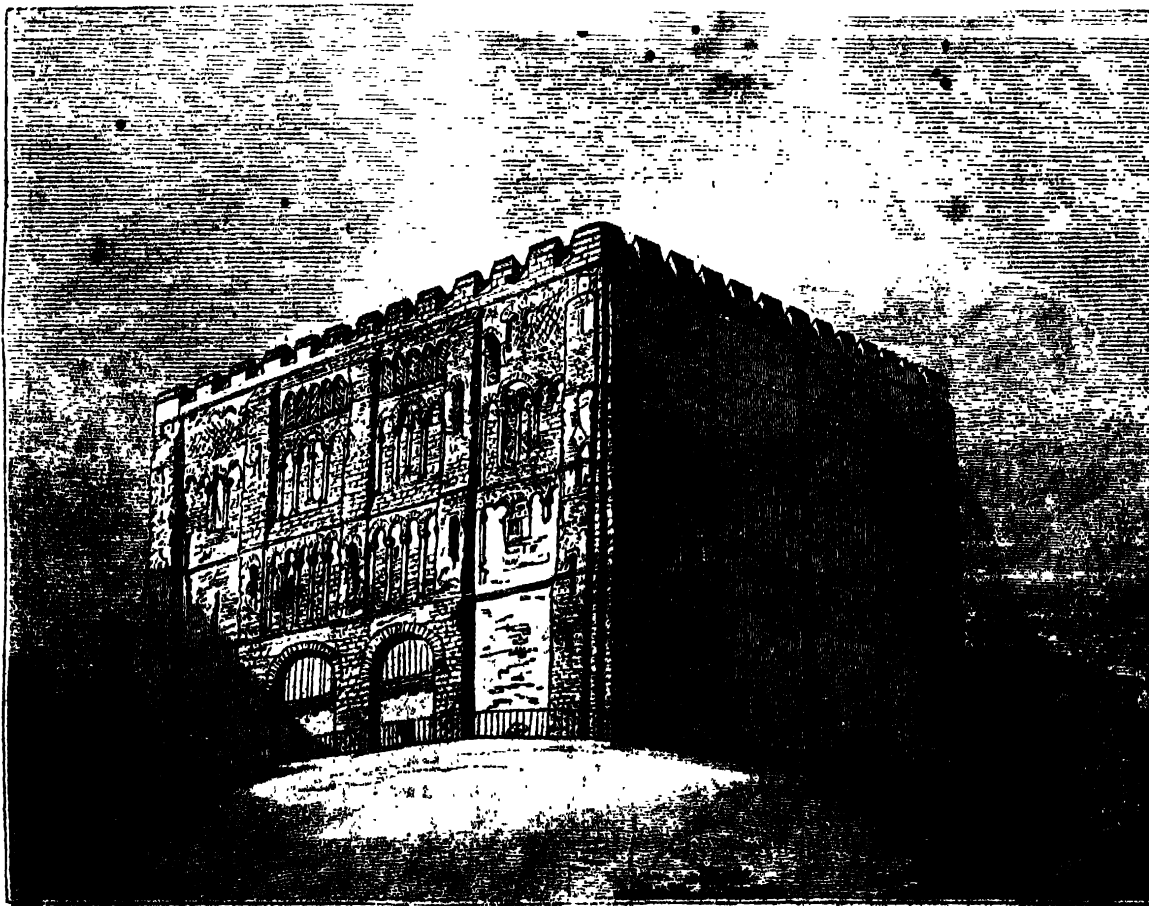
The main building is a parallelogram, 110 feet in length from east to west, by about 93 feet in breadth. With the exception of the east end already noticed, the different sides present nearly the same general aspect, — a basement story built of rough flint-stones, and above that three upper stories, constructed of regularly-laid and ornamented freestone. Running along each is a series of semicircular arches, supported by small columns, and between them slight buttresses ascend from the base of the wall to the top. In the upper story the face of the wall behind the arches is formed into a sort of net-work by the stones being ranged in diagonal rows, and being besides ornamented with deep grooves, so as to produce a sort of cross-hatching. The entire height is nearly seventy feet, of which twenty-four feet is occupied by the basement story; and the whole terminates in a battlemented ridge. The walls are in some places thirteen feet thick.

The origin of the building is involved in great uncertainty; and the question has much divided the antiquaries. "Vulgar tradition," says Thornhaugh Gurdon, in a short anonymous Essay, published at Norwich in 1728, "first makes it a British castle of great strength, before Julius Cæsar peeped into the nation; and another part of the same tradition gives it a high founder, no less man than Julius Cæsar, and that the great crack in the east wall of it was made at the same time the veil of the Temple was rent; and have produced some other such-like brats of prolific imagination, not worthy of confutation." Gurdon has traced the known history of the castle with considerable learning; and his sketch has been the guide of most of those who have since given an account of it. The common opinion is, that the original Roman station in this part of the island, the Venta Icenorum as they called it, was at Castor, about three miles south from Norwich; although Mr. Blomefield, the learned historian of the county, conceives it to have been not here but at Elmham. It can scarcely be doubted, however, that Castor was a Roman or British settlement, whether that called in the 'Itineraries' Venta Icenorum or not. It was in all probability in reference to Castor that Norwich was so named by the Saxons. The word signifies merely the northern town. When the Saxon leader, Uffa, in 576, founded the kingdom of East Anglia, the present county of Norfolk formed a part of it; and it is ascertained that, before the middle of the following century, Anna, one of Uffa's successors, had a castle or royal residence here. What sort of erection this may have been, however, it is impossible to say. Ancient authorities state, that when Alfred the Great, in the ninth century, repaired and restored the different castles

which had suffered from the devastations of the Danes, he, for the first time, built of stone many of them which had before been constructed only of earth; and that of Norwich seems to be spoken of as one of the number. Alfred's Castle, however, was, in the beginning of the eleventh century, entirely destroyed by the Danish invader, Sweyn. There is no mention in any record of the erection of another fortress before the Norman Conquest; but from the character of the architecture of the present building, which is not Norman, but Saxon, it is supposed to have been the work of Sweyn's son, Canute the Great, who, during his peaceful reign, is known to have planted many such strongholds throughout the country, the better to control his subjugated kingdom. After the Conquest, in 1077, Roger Bigot is recorded to have been appointed Constable of Norwich Castle. It remained in that family until it was surrendered to the crown, in 1225, in the reign of Edward III. About half a century afterwards, however, it was again granted to the Bigots, now become Earls of Norfolk, and Marshals of England. The other historic notices which have been preserved of it, merely record the names of the successive noblemen who enjoyed the honour of being its constables. It became eventually the property of the crown, in whose possession it continued till the year 1806, when it was, by act of parliament, made over, in trust, to the magistrates of Norfolk, to be by them disposed of for purposes connected with the public business of the county.

The mode in which Norwich Castle appears to have been fortified is certainly somewhat peculiar, and ought, perhaps, to be considered as alone furnishing a strong

proof that it is not a Norman work. Some antiquaries have even gone so far for the model of the three circular walls as to the Temple of Jerusalem, and certain oriental fortresses of equal or perhaps greater antiquity, which are stated by Josephus to have been constructed in this fashion. It may be observed, however, that, admitting the original foundation of the castle, and the form of the outworks, to belong to times antecedent to the Norman invasion, the keep may still have been erected since that event. In so far as its interior construction can now be ascertained, it appears to have closely resembled the castles of Canterbury and Rochester, both of which were Norman structures. It seems to have been, for instance, divided, as they were, into two parts by a strong partition, running across it from east to west, and probably containing a well which was open from the foundation to the summit of the building. Norwich Castle, we may mention in conclusion, was in former times popularly known by the name of Blanche-flower, in allusion perhaps to the colour of the stone, which, when new, would be white, but more probably, we think, to the general beauty of its appearance. This appellation seems to have been forgotten at the beginning of the last century. Gordon says he must believe it to have been at one time in use, because Coke mentions it in his 'Institutes.' But the castle is also so called by others;—for example, by the writer of a very curious account of the reception given by the people of Norwich to Queen Elizabeth, when she visited the city in 1587, which may be found in Hollingshed, and also in Nichols's Progresses of that Queen.



[South-west View of Norwich Castle.]

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THE CURL-CRESTED ARACARI.



[The Curl-crested Aracari—*Pteroglossus Ugcumus*, GOULD.]

IN No. 73 of the 'Penny Magazine' a group of several specimens of the Toucan was given, accompanied by a short account of that remarkable bird. For the present very curious variety we are indebted to Mr. Gould's splendid 'Monograph of the Family of Ramphastide,' the author of which has given the only description of the bird, and supplied the specific denomination. It is thus described:—The beak is lengthened, both mandibles being edged with thickly-set white serratures; the upper has the culmen of an orange colour, bordered by a narrow longitudinal stripe of dull blue, extending nearly to the tip, below which the sides of the mandible are fine orange red; a white line surrounds the apertures of the nostrils; the under mandible is straw-coloured, becoming orange at the tip;—a narrow band of rich chestnut encircles both mandibles at their base. The crown of the head is covered with a crest of curled, metal-like feathers, without barbs, of an intense black, and very glossy; as they approach the occiput these appendages gradually lose their curled character and become straight, narrow, and spatulate. In mentioning this part, Mr. Gould regrets that it was beyond the efforts of the pencil to do justice to the rich appearance of these glossy and curiously-curved appendages, the structure of which appears to consist in a dilatation of the shaft of each feather, or, perhaps, an agglutination of the web into one mass. The feathers on the cheeks have the same form as those on the occiput, but are more decidedly spatulate, and being of a yellowish-white colour, tipped at the extremity with black. The occiput and upper tail coverts are of a deep blood-red; the chest delicate yellow, with slight, crescent-shaped bars of red. The back, tail, and thighs are olive-green, the quills brown, and the tarsi of a lead-colour. The following were the dimensions of the specimen represented:—total length eighteen inches, bill four, wings five and three-quarters, tail seven and a-half, tarsi two and a quarter.

Two examples of this species formed part of a collection of rare birds brought to this country from Rio de Janeiro. Of these Mr. Gould was so fortunate as to obtain one of the finest, apparently a male, and which is now in the Museum of the Zoological Society of London. The other, which is considered a female, is preserved in the British Museum. The habitat of this species is probably in the almost untrodden forests which border the River Amazon; but our information concerning it is at present limited to the above description of its appearance.

THE LABOURERS OF EUROPE.—No. X.

THE PEASANTRY OF THE ALPS.—SWITZERLAND.

IN the Alpine districts of Switzerland, which occupy all the eastern and southern, and some of the central, parts of that country, each proprietor cultivates his own portion of land in the valleys; the pasture and forest lands on the mountains are in common. Cows constitute the wealth of the land-owners, and goats form the resources of the poorer people. The goat is peculiarly fitted for mountain-pastures, as he will climb and browse on crags and cliffs where sheep could not ascend. In winter, the goats are fed on the boughs of the fir tree. A goat yields more milk than a ewe: but goats are also very destructive to gardens, plantations, and shrubberies. In some parts of Switzerland a cow will give as much as twelve quarts of milk in a day. A variety of cheese is made, which constitutes the chief article of exportation, and in return for which the inhabitants procure those necessaries, and even luxuries, which their country does not afford. The cheese called Gruyere is much celebrated, and considerable quantities are yearly exported. The cheeses of Urseren, Unterwalden, Emmenthal, &c., are also much esteemed:—some of these

will keep for half a century. The cheese called Schabzieger is made in the canton of Glarus, and is mixed with aromatic herbs or flowers. The value of the cheese, butter, and other preparations of milk is calculated at about 25,000,000 of Swiss livres, or 1,500,000*l.* sterling, yearly.

The valleys at the foot of the Alps produce a little corn, and abundance of potatoes, turnips, carrots, and other roots. Fruit trees, such as the apple, the pear, the cherry, the plum, are also abundant. Some districts, such as the Canton of Zug, for instance, appear like one vast orchard. The vine, however, does not grow, except in very few spots.

In the upper valleys of the Alps, where the winter lasts for six or eight months, during the greater part of which the snow blocks up the communications, each family must lay in provisions for that season. The following has been stated as the quantity required for a family of seven persons:—1 cwt. of hard-baked bread; 1000 lb. of potatoes; 7 cheeses, each weighing 25 lb.; besides the milk of three cows and seven goats. One of the cows is killed during the season. During this dreary period, the family are employed in making linen for their own use, for which purpose a small patch of the ground belonging to every cottage is sown with flax. The men are busy at several kinds of in-door work; they carve wood into different articles of use or ornament, such as bowls, toys, clogs, spoons, &c., in which they are very skillful, and which they afterwards sell in the towns. The houses are mostly built of wood, and detached in scattered hamlets to avoid the spreading of fire. They are generally large, solid, and roomy; the interior kept very clean, the windows glazed, but, owing to the cold, only one-fourth part or panel of the sash is made to open. Added to this, the stoves, made of a soft, porous stone,—and with which the rooms are warmed,—produce an unpleasant smell, which is not heeded by the inhabitants, who sit for days together, in winter, crowded into one room. Sudden transition from the icy atmosphere outside to the high temperature of the apartments, is the cause of many colds and coughs, which often terminate in death.

The population of these mountain cantons is strictly pastoral. The land in the valleys is divided by thick hedges into fields for pasture, and to every dwelling-house, capacious stables are attached. Each proprietor is allowed to take to the common pastures on the Alps in summer as many cows as he can support in winter by fodder collected on his own fields. He leaves his winter-habitation in May, and proceeds with his family and his cattle, carrying with him some furniture and utensils, to the pastures which the snow has just left, and where he has his *chalet*, or hut, for the season. He remains there till July, and, during this time, descends into the valley for several days to mow his hay. At the beginning of July, the snow having left the highest pastures,—which are, in some places, 5000 feet above the plain,—the family proceed to the third, or summer-house, where they remain till the middle of August, when the weather becomes too cold longer to dwell on those great heights, and they return to the middle pastures where the grass has had time to spring up again in the interval. The men descend again to the valley to mow the second crop of hay. Towards the end of October the cattle re-descend into the valley, where they graze on the short grass that remains until the winter obliges them to be shut up in the stable, where they are fed upon dry fodder. The usual repast of the family consists of boiled milk, potatoes, and cheese of the year; old cheese is occasionally added by way of luxury. Coffee is very generally drunk in the morning.

Among the amusements of the Swiss mountaineers, a kind of wrestling, which they call *schwingen*, is a

favourite one. Regular matches are agreed upon and advertised beforehand, and a prize, such as a sheep, or a cheese, awarded to the winner. The innkeeper of the village where the match takes place generally bestows the prize, for which he is well compensated by the multitude of customers attracted to the spot. But there are also wrestling matches on a larger scale. Certain communes, or districts, or even whole cantons, send a challenge to their neighbours to try which has the best wrestlers;—the men of Glarus against the men of Schwytz, or the Oberland against the Simmenthal. These matches are conducted with much order and regularity, and with no small display of local or provincial pride.

In the eastern cantons, especially among the robust mountaineers of Appenzell, they have a sport somewhat resembling the hurling of some counties in England. It consists in balancing a ponderous stone, or fragment of rock, upon the palm of the right hand, bent backwards to the shoulder; and, after swinging the body to and fro for some time, with one foot raised from the ground, sending the fragment, by a sudden exertion of muscular strength, against a mark or over a certain limit.

Firing with a rifle at a target is a common exercise all over Switzerland. There are societies who bestow prizes on the best marksmen. Once a-year each canton sends a certain number of its riflemen to a general meeting from every part of the whole confederation, to try their skill. These meetings are truly a national festivity, and are conducted with great order and solemnity.

The pastoral cantons of Switzerland are, in their form of government, pure democracies, that is to say, the supreme legislative power lies in the *landsgemeinde*, or general assembly of all the male natives of each canton who have attained the age of eighteen. The assembly meets in a field once a-year,—generally in the spring,—and oftener if particular circumstances require it. The best account of these meetings is given by a French traveller, M. Ramond, who attended one in the canton of Glarus.

These little republics are each not so populous as many a parish in London; they have no public establishments, and their internal affairs are very simple. All matters more complicated, and affecting the whole of Switzerland, are discussed in the Diet, which is held in one of the cities, and to which every canton sends a deputy. These deputies are generally chosen from among the better-informed men of the canton. That of Schwytz once sent an honest but uninformed peasant. When the deputy returned, and appeared before his countrymen at the next general assembly, he told them that, "if they wished that their interests should be properly attended to at the Diet, they must not send men like himself, who were only acquainted with the concerns of their cattle and their dairies, but men who had studied and travelled, who could understand what those other gentlemen from the towns talked about, and could answer them to the purpose, and make themselves minded by them."

Antient Marriages.—Among the antient privileges of royalty in this country, may be mentioned the right which the kings claimed of exercising a control, not always paternal, over the marriages of persons of any consideration. The rolls, for the year 1206, exhibit two notifications on this subject. The first notifies to the Barons of the Exchequer, that Roger Fitz Henry had paid to the king the fine of one pallfrey, which he had incurred by taking to wife the widow of Hugh Wac; and the other notifies to the sheriff of Lincoln, that the king had given to Brian de Insula, a knight, the daughter and heiress of William Seloby, to wife, with all her land, of which the sheriff is directed to put him in possession.

* Muller's History of Switzerland.

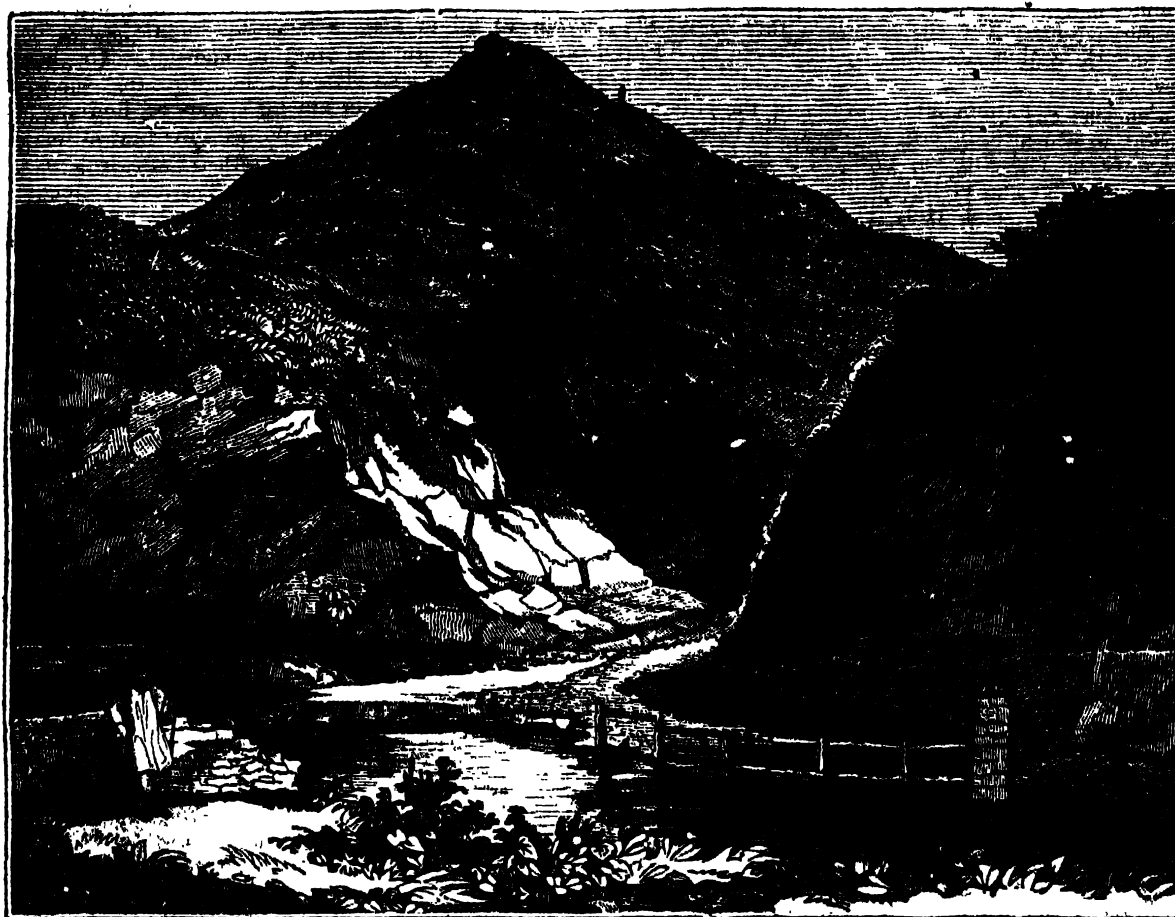
Reserve.—Persons extremely reserved are like old enamelled watches which had painted covers, that hindered your seeing what o'clock it was.—Horace Walpole.

Matrimonial Forbearance.—Man and wife are equally concerned to avoid all offences of each other in the beginning of their conversation: every little thing can blast an infant blossom; and the breath of the south can shake the little rings of the vine, when first they begin to curl like the locks of a new-weathered boy: but when, by age and consolidation, they stiffen into the hardness of a stem, and have, by the warm embraces of the sun and the kisses of heaven, brought forth their clusters, they can endure the storms of the north, and the loud noises of a tempest, and yet never be broken. So are the early unions of an unfixed marriage; watchful and observant, jealous and busy, inquisitive and careful, and apt to take alarm at every unkind word: for infirmities do not manifest themselves in the first scenes, but in the succession of a long society; and it is not chance or weakness when it appears at first, but it is want of love or prudence, or it will be so expounded; and that which appears ill at first, usually affrights the inexperienced man or woman, who makes unequal conjectures, and fancies mighty sorrows by the proportions of the new and early unkindness.—Jeremy Taylor.

Extraordinary Article in the Ecclesiastical Code of Iceland.—In the ecclesiastical code of this country an article is extant, singular, perhaps, in its nature, but admirable in its design, which gives to the bishop, or even to the inferior clergy, the right of preventing any marriage where the female is unable to read. This law, which provides so powerful a pledge for the instruction of the rising generation, is still occasionally acted upon, though, probably, not with so much strictness as in former times. The books in the possession of the lower classes are generally of a religious nature, a great number of such works having been printed in Iceland during the last two or three centuries, and very generally circulated through the country. In many parishes there is a small collection of books belonging to the church, from which, under the superintendence of the priest, each family in the district may derive some little addition to its means of instruction and improvement.—Sir George Mackenzie's Travels in Iceland.

Peruvian Sepulchres.—At the foot of a high mountain which rises from the shore of a small bay called Chacota, to the south of Arica, are a great number of antient sepulchres. These are covered over, like the adjacent soil, with a species of earth very much impregnated with salt; and to this may be doubtless attributed the preservation of this memento of the unhappy aborigines of the country. In 1790, several of these sepulchres were examined by Don Felipe Bauza, a captain in the Spanish navy, who found the greater part of the bodies in an entire condition, but withered to a skeleton, covered with a dark brown skin, and the hair of some quite of a red colour. The niches in which they were deposited were generally cut out of the stone from four to five feet in length: some being rudely carved, and having at the bottom a mat made of rushes. The bodies were placed on this mat, the same attitude being generally observed in all. They were seated cross-legged, with the hands placed over the breast, and so contracted as to occupy the least possible space. Others were seated with their knees bent up near the mouth, the hands likewise being crossed over the breast, and all placed with their faces towards the west. The body of a young man was taken out, that had been wrapped in cloth, and his features were still distinct: that of a woman was also examined whose hair was in perfect preservation—it was about half a yard in length, and divided into two parts. Some of the bodies were wrapped in a sort of coarse woollen cloth from the head to the feet, the mouth being tied up; others were wrapped in coarse nets made of "pitu," and all of them had a small bag hung round the neck, which was found at the time to contain nothing but earth and dust, whatever it might originally have been. Various little pots, made of clay, were found round the bodies, and some larger ones of curious forms. In addition to these, some fragments, apparently of plates, an ear of corn, some pitn, and other trifling articles, were found; also some small pieces of copper cut in the shape of coins. In Ylo, and other parts of this coast, these sepulchres are common.

DOVE-DALE.



[Entrance to Dove-Dale.]

Of the varied scenery for which Derbyshire is so much celebrated, its numerous dales form the most beautiful and interesting portion. The first of the number, in size as well as beauty, is the far-famed and romantic Dove-dale, so called from the river Dove, which pours its waters through it. On entering this enchanting spot, the sudden change of scenery, from that of the surrounding country, is powerfully striking. The brown heath, or richly-cultivated meadow, is exchanged for rocks abrupt and vast, which rise on each side, their grey sides harmonized by mosses, lichens, and yew-trees, and their tops sprinkled with mountain-ash. The hills that inclose this narrow dell are very precipitous, and bear on their sides fragments of rock that, in the distance, look like the remains of ruined castles. After proceeding a little way, a deep and narrow valley appears, into the recesses of which the eye is prevented from penetrating, by the winding course it pursues and by the shutting in of its precipices which fold into each other and preclude all distant view. A further progress exhibits an increase of majesty and rudeness in the scene. The objects which, at a distance, appeared to have been ruins, are found to be rude pyramids of rock and grand isolated masses, ornamented with ivy, rising in the middle of the vale. The rocks which inclose the dale, forcing their scattered and uncovered heads into the clouds, overhang the narrow path that winds through its dark recesses, and, frowning in craggy grandeur, and shaggy with the dark foliage that grows out of the chinks and clings to the asperities of the rocks, form a scene unrivalled in romantic effect. The mountain, which rises in the back-ground of the view given above, (which, with the one in the following page, are engraved from drawings made purposely by Mr. R. W. Buss,) is known by the name of Thorp Cloud. On proceeding about a mile into the vale,

fantastic forms and uncouth combinations are exhibited, in vast detached mural masses, while the sides of the dell are perforated by many small natural caverns which are difficult of access.

The length of Dove-dale is nearly three miles, and it is in no part more than a quarter of a mile wide, while in some places it almost closes, scarcely leaving room for the passage of its narrow river. On the right, or Derbyshire side of the Dale, the rocks are more bare of vegetation than on the opposite or Staffordshire side, where they are thickly covered with a fine hanging wood of various trees and odoriferous shrubs and plants. The frequent changes in the motion and appearance of the transparent Dove, which is interspersed with small islands and little waterfalls, contribute to diversify the scenery of this charming spot; while the rugged, dissimilar, and frequently grotesque and fanciful appearance of the rocks, gives to it that peculiar character by which it is distinguished from every other in the kingdom. The view in the following page is of a very remarkable scene of this description, and cannot fail to be immediately recognized by every one who has had the pleasure of visiting the spot.

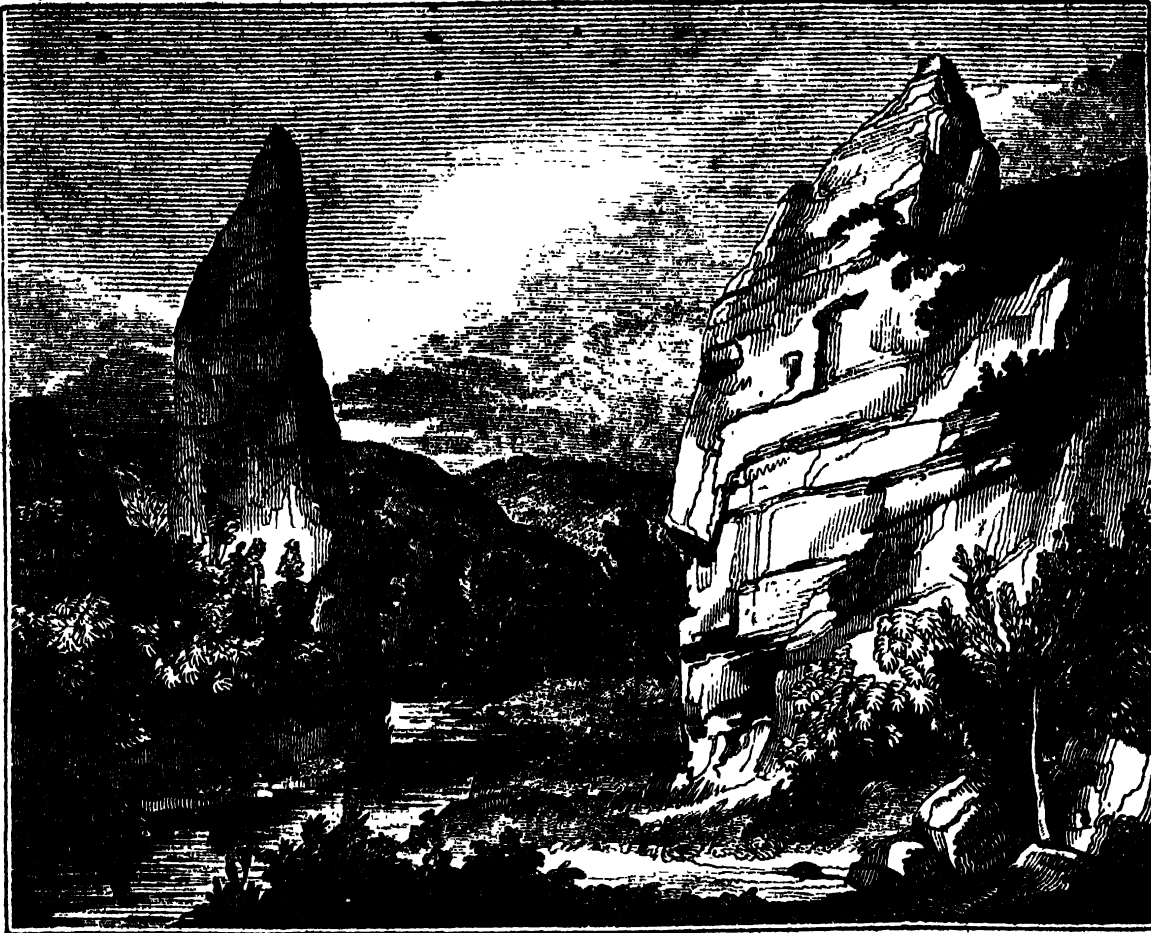
The Dove has long been famous among anglers; old Izaak Walton, his disciple Cotton, and Sir Humphry Davy, have all celebrated it, not only for the sport it afforded them, but for its natural charms.

We cannot dismiss a notice of this very interesting spot without mentioning a peculiarly graceful custom which still lingers in its neighbourhood,—one of those poetical usages of the olden time which have almost departed from the country, and the loss of which none would regret more than ourselves, did we not consider it a necessary result of that risen standard in the every day enjoyments of the people, which, by affording many objects to interest the mind that did not formerly exist,

and by diminishing the distance between the pleasures of ordinary and festival days, weakens the stimulus to their observance. The custom which gave occasion to this remark is thus described by Rhodes in his 'Peak Scenery.'

• "An ancient custom still prevails in the village of Tissington, to which, indeed, it appears to be confined, for I have not met with any thing of a similar description in any other part of Derbyshire. It is denominated 'Well-flowering,' and Holy Thursday is devoted to the rites and ceremonies of this elegant custom. This day is regarded as a festival, and all the wells in the place, ~~as in number~~, are decorated with wreaths and garlands of newly-gathered flowers, disposed in various devices. Sometimes boards are used, which are cut into the figure intended to be represented, and covered

with moist clay, into which the stems of the flowers are inserted to preserve their freshness; and they are so arranged as to form a beautiful mosaic work, often tasteful in design, and vivid in colouring. The boards thus adorned are so placed in the spring that the water appears to issue from amongst beds of flowers. On this occasion the villagers put on their best attire, and open their houses to their friends. There is a service at the church, where a sermon is preached; afterwards a procession takes place, and the wells are visited in succession; the psalms for the day, the epistle and gospel are read, one at each well, and the whole concludes with a hymn, which is sung by the church-singers, accompanied by a band of music. After this, the people separate, and the remainder of the day is spent in rural sports and holiday pastimes."



[Scene in Dove-Dale.]

PAINTING IN THE THIRTEENTH CENTURY.

It appears that in the thirteenth century the cultivation of the fine arts received a new impulse from the liberal patronage of Henry III.,—a weak king, but a person of cultivated taste for the period in which he lived, and whose profusion was not always so unworthily displayed as we might infer if the complaints of the barons only were heard. The remaining sculptures of this period exhibit a decided improvement; painting on glass was much cultivated, and there are still preserved in the British Museum illuminated manuscripts, which show that the art of illuminating had been brought to great perfection. It appears that painting was cultivated with equal diligence and success. Henry III. kept several painters constantly in his employ; among whom, William a monk of Westminster, William the Florentine, and Walter of Colchester, seem to have been particularly distinguished. By these, and others, several

historical paintings were executed in the royal palaces; representing either subjects from the Old and New Testaments, or events in the life of the kings. The following order, with regard to such a painting, has an increased interest from referring to circumstances in the life of Henry III. which history does not, to our knowledge, mention. The king's treasurer, and Edward of Westminster, are commanded to pay to William the Painter, a monk of Westminster, his charges for painting at Westminster, in the wardrobe, where the king was accustomed to wash his hands, a certain picture, representing the king rescued by his dogs from the seditions which were plotted against him by his subjects. Dated 1256. An order, dated a few years previous, commands Edward of Westminster to cause the images of the Apostles to be painted around St. Stephen's Chapel, (the present House of Commons,) and the Judgment Day on the western side; and in like manner to cause the figure of the Blessed Virgin Mary to be painted on

a tablet, so that they may be ready at the king's coming there.

It appears that the exploits of King Richard I., in the third crusade, afforded favourite subjects for both poetry and painting during the reign of Henry III. The king had such subjects painted in a chamber of his palace at Clarendon, and in the Tower of London, and in one of his chambers at Westminster, which was thence called the Antioch Chamber,—Antioch having been the scene of the exploits commemorated. Beneath the grand historical picture in this chamber, the king had directed a picture to be painted representing birds, lions, and other beasts. Better consideration induced him to countermand this order, and to direct that the unoccupied space should be painted green, after the fashion of a curtain or hanging, so that the effect of the great history might be left unimpaired.

The following curious order, issued in 1296, though it scarcely exemplifies the state of the fine arts, may be noticed in this place. The treasurer is commanded to cause, against the king's arrival, the great chamber at Westminster to be painted with a good green colour, after the fashion of a curtain; and, in the great gable of the same chamber, near the door, this device to be painted, "Ke ne dunc keue tine ne prent ke desir*." The king's small wardrobe is directed to be painted in the same manner.

As this order was of an earlier date than the former, we may be allowed thence to infer a gradual improvement in the royal taste for internal decoration. It appears that the taste for painting extended so rapidly, that, in the next century, not only churches and palaces but private houses were decorated with them. So when Chaucer awoke from his poetical dream, he expresses his surprise that all the gay objects he had seen in his sleep were vanished, and he saw nothing;

* Save on the wals old portraiture
Of horsemen, haukes, and houndis,
And hart dre all full of woundis."

And although, in considering this a real description of the poet's bed-chamber, the peculiar refinement of his taste must be taken into the account, it appears, that in his time drawing had come to be considered a necessary part of an accomplished gentleman's education. Chaucer names the following among the acquirements of the squire, or knight's son:—

"— Songis he could make, and well indite,
Just, and eke daunce, and well portraie and write."

It is observable that, in most of the royal orders of this period, talent is tasked to produce its works within a given, and often a very short, time;—generally "against the king's arrival." Nor were such labours, even in the highest departments of art, always matters of voluntary undertaking. Among other instances, the following may be mentioned:—Edward III., in his anxiety for the speedy completion of the painting in the chapel of his palace, issued a precept, dated 18th March, 1350, to Hugh de St. Alban, his chief painter, commanding him to impress all the painters in the counties of Middlesex, Kent, Essex, Surrey, and Sussex, to conduct them to Westminster, and to keep them in his service so long as should be necessary; and, apprehending that these would not be sufficient, a similar order was given for the impressment of all the painters in the counties of Lincoln, Northampton, Oxford, Warwick, Leicester, Cambridge, Huntingdon, and Norfolk. There is other evidence to show that personal liberty was compromised by the attainment of great skill in any art which could minister to the royal taste of convenience; and talent, instead of leading to that distinction, independence, and wealth, which are its due, conducted its possessor to grind in the prison-house. One of the

* He who has, and does not give,
Will not, when he wants, receive.

Rolls before us is dated the 6th of John, 27th June, 1204, and notifies to Robert de Vipont, that Thomas the arrow-maker had been committed by the king to the custody of Hugh de Nevill, Thomas de Sanford, and John Fitz Hugh, who had undertaken not to let him depart from court without the royal licence, and had engaged that he should make six arrows for the king's use every day, except Sunday.

MUSIC FOR THE MANY.—No. III.

WITH the immoral reign of Charles II. an entirely different order of things commented. The opponents of the Puritans then had their own way, and could no longer complain of restrictions put upon piping and dancing, balls and plays. Songs again appeared in countless numbers, but they were too often indecent and immoral, and calculated rather for the atmosphere of a witty but corrupt court, than for the purer air of the country, or for the enjoyment of the people at large. Charles himself was a song writer, and a piece of his is extant, beginning,—

"I pass all my hours in a shady old grove;"

"which," says a sarcastic critic, "though by no means remarkable for poetical merit, has certainly enough for the composition of a king*."

Some of the songs, however, written during this reign by Sedley, Rochester, Dorset, Sheffield, and others, to say nothing of those of the great Dryden, were masterpieces in their way, and unexceptionable as to morals. There is particularly a sea song, written by Lord Dorset the night (it is said) before an engagement with the Dutch, which, from its admirable ease, flow, and tenderness, became at once popular with all classes†. We quote the first two verses as a specimen.

"To all you ladies now at land
We men at sea indite,
But first would have you understand
How hard it is to write.
The Muses now, and Neptune too,
We must implore to write to you.
With a fa, la, la, la, la.
For though the Muses should prove kind,
And fill our empty brain;
Yet if rough Neptune rouse the wind
To wave the azure main;
Our paper, pen, and ink, and we,
Roll up and down our ships at sea.
With a fa, &c."

Indeed the shorter pieces of most of the poets of the time of Charles II. had a rhythm and cadence particularly well suited to music. They were, in short, what the Italians call *cantabile*, or fit to be sung. Besides writing words for songs, Charles understood a little music, and could sing the tenor part in an easy duet. He frequently amused himself in this way with a good singer on the establishment of the Chapel Royal, his brother, the Duke of York (afterwards James II.), accompanying them on the guitar.

In the succeeding reigns, with the growth of our literature, there was a considerable increase in song writing; most of our poets of eminence, and some who had no eminence except what they obtained in that way, devoting themselves occasionally to the composition of lyrical pieces. Prior, Rowe, Steele, Philips, Parnell, Gay, and others, contributed a stock which might advantageously be referred to by the composers

* Ritson.

† Dr. Johnson remarks on the circumstances under which this song was written:—"Sceldom any splendid story is wholly true. I have heard from the late Earl of Orrery, who was likely to have good hereditary intelligence, that Lord Dorset had been a week employed upon it, and only retouched or finished it on the memorable evening. But even this, whatever it may subtract from his facility, leaves him his courage." This battle was fought in 1665, during the first Dutch war.

of our own times. The natural and elegant, the humorous and pathetic Gay, shows, perhaps, to most advantage. One of his ballads, 'Black-eyed Susan,' can never be forgotten, and some others of his are almost equally admirable, particularly that beginning,—

" 'Twas when the seas were roaring
With hollow blasts of wind,
A damsel lay deplo'ring,
All on a rock reclined.
Wide o'er the foaming billows
She cast a wistful look;
Her head was crowned with willows,
That trembled o'er the brook *."

Music, however, was far from keeping pace with poetry. There was, indeed, at the latter part of the seventeenth and beginning of the eighteenth century, that admirable composer Purcell, Henry Carey, and one or two others, but nearly all the new songs produced were not accompanied by new music, but set to old tunes. It is a curious fact, that when Gay brought out his 'Beggars' Opera' not one of the airs to the seventy-two songs in that piece was composed for the purpose. They were all music already considered old. It is to be regretted that many of those airs have lost their original simplicity; but, as Dr. Burney observes, music never remains long simple when it has once been introduced upon the stage.

Another subject of regret in the view we take, is, that neither the words nor the music of the good new pieces that appeared seem to have been so spread among the great body of the people as were those of the times of Elizabeth, James I., and Charles I. There is, however, one memorable exception in the case of Henry Carey, who struck into a new path, and in his 'Sally in our Alley,' of which he wrote both the words and the music, obtained at once a popularity (using that word in its proper sense) which he has never lost and never will lose. This song was soon known from one end of the kingdom to the other,—like those of the olden time the ploughman whistled it "over the furrowed land," and it was "sung to the wheel and sung unto the pail." Addison, one of the most elegant writers of that or any other period, shared in the taste of the people; this sweet simple song was an especial favourite with him.

In the reigns of George I. and George II., just as it has happened under the third and fourth monarchs of that name, there was not wanting a mob of fashionable easy writers to inflict on the public deluges of namby-pamby, mellifluous song and verse, without the shadow of a sentiment or meaning. Pope has most happily parodied these fashionable sing-songs in the character of "a person of quality," in those well known verses beginning,—

"Fluttering spread thy purple pinions,
Gentle Cupid, o'er my heart,"

in which he condemns all their classico-pastoral absurdities, and surpasses all their honeyed sweetness to the utter discomfiture of common sense. To stop the march of nonsense in the way of songs, was more, however, than the wit of Pope could achieve. At the same time his friend Swift employed his exquisite humour and tact in ridiculing the affected musical jargon which then prevailed in fashionable life †.

The Italian opera, first introduced in the reign of Anne, though it did not set an example of having good words for good music, improved the musical taste of some of the rich and great; but from circumstances, not necessary to explain, it could scarcely exercise an influence on the people. The opera, moreover, had an evil effect, in this way—it led a certain class of persons

to believe that no vocal music could be good unless it were Italian, or at least foreign. We are not so absurd as to deny the surpassing excellence of Italian song, but we may doubt whether the majority of those who reasoned in that manner were not merely led by fashion, and insensible to the real beauties of all music; while, it is certain, the prejudice tended to dam up the stream of English melody. The great composer Handel, at the beginning of the last century, began, and continued for many years, to exercise a good influence on the nation to a very considerable extent. His German style of music allied itself more readily with the old English style, which, no doubt, it improved. His compositions found their way to most parts of the kingdom, and the more simple of them became the delight of all amateur performers, and were played in all the gentlemen's houses at that period. But we can scarcely trace the good taste lower. Interminable ballads, with the most monotonous of tunes, were, at that time, the favourites of the people.

Since the days of Handel we have had a few good song writers, and several good native composers, such as Dr. Boyce, Dr. Arne, Linley, Jackson of Exeter, Shield, Dr. Arnold, &c., &c. Linley and Jackson both formed their style upon the melodies of our best old English masters, and for this reason we should like to see their works reproduced and diffused. Until the great excitement of the last war, however, when Dibdin published his numerous and admirable sea songs, there was little in the way of music that descended to, and laid hold of, the poorer classes. In days still more recent the delightful lyrics of Mr. Thomas Moore have emulated the popularity of Dibdin's, and have contributed largely to raise the taste of the people; though, it must not be forgotten, that the airs to the greater part of his songs are Irish, not English. It appears, indeed, that both the Scotch and Irish of all classes have retained their old melodies with a much more careful love than the English have bestowed on theirs.

Much has been said about the inherent bad taste of English people. It has been assumed that nothing but the common-place and the vulgar, in music, had any charms for them; and hence the theatres, and other places of amusement, have given them the vulgar and the common-place to repletion. It has hitherto been the fate of the great body of the people to have their intellects and tastes unfairly and disparagingly judged of, and to have the really good in music, and the rest of the fine arts, kept out of their sight and reach. Many writers upon taste, who pretended to metaphysics and all the loftier branches of philosophy, have asserted that the refined strains of music please the uncultivated ear much less than the dissonant hubbub to which it has been accustomed,—and that, in short, the ruder the music, the more it delights the barbarian.

Yet the writer of these observations has had an opportunity of witnessing the directly contrary effect among the Turks, who are, at least, a semi-barbarous people, and who, up to that time, had only heard the most primitive and utterly barbarous music. The present Sultan, in the course of his military reforms, engaged a certain number of Italian musicians to form the nucleus of his bands, and to instruct a set of young Turks in their art. Whenever these men played on parade, or at a review, at Constantinople, the whole city ran after them—all classes were immediately enraptured with the rich, refined music of the Italian school, and found their own shrill, screaming pipes, clanging cymbals, cracked drums, and coarse harmonies, insufferable in comparison. Now, taken generally, the humblest mechanic in England is a more refined and intellectual being than the highest Turk; and it has, therefore, created no surprise in the mind of the writer to meet, as he frequently has done since

* This piece was set to music by the great Handel, and afterwards by Jackson of Exeter.

† See his 'Cantata.

the somewhat remarkable improvement among the street muskians in London, with a crowd of working men paying eager attention to the pieces of Mozart and other great masters, and declaring they could listen to such music all the night long.

The fault is not with the people. Good taste has been confined, by high prices, to the "high places;" though it has not always over-bounded there. The theatres and other public places have administered to bad taste: little or nothing except trash has been open to the people; and they have been deemed barbarians because they took what fell in their way, and showed no love for what they never had an opportunity of knowing. We trust, however, that, for the future, good music, like good literature, may be made accessible to all; and that, as a mode of enlarging the cheap enjoyments of a poor man's life, even every village-school in the kingdom may possess the means of teaching (as they are taught at similar establishments in several districts of Germany, in Bohemia, and even in the snow-covered, poverty-stricken island of Iceland) the art of reading musical notation and the first rudiments of music. Plain singing is what we should recommend for the schools of the poor. Vocal music is not only the most natural to man, but it is also the most pleasant, and the easiest to be procured. The effects that are to be obtained, particularly by children's voices, are exquisite in the extreme. In the churches of Russia, where no instrumental music is allowed, it is a common thing to hear the voices of hundreds of young people who have been merely well drilled as to time and tune, blending in indescribable harmony, and making an impression that scarcely any other sort of music can equal. Indeed, according to the great composer, Haydn, the strongest musical impression he ever received, though his life was passed among music, was made on him by the charity-children, at their general assembly in St. Paul's Cathedral, singing all together a psalm to a *plain melody*. He said he was so powerfully affected by this that he should remember it, and through the remembrance, till death.

Natural simplicity ought principally to be kept in view. "Vocal music," said an eminent Italian critic, more than a hundred years ago, "ought to imitate the natural language of the human feelings and passions rather than the warbling of Canary birds which our singers now-a-days affect so vastly to mimic with their quaverings and boasted cadences*."

Dress and Cloths in the Thirteenth Century.—The writers of the thirteenth and fourteenth centuries bitterly complain of the extravagance and luxury of dresses and fashions at that period. As this has at all times afforded matter of satire and animadversion, such censures would not demand particular attention were their justice not established by particular statements. Matthew Paris states that at the marriage of the eldest daughter of Henry III., with Alexander III. of Scotland, in 1251, the King of England was attended, on the day of the ceremonial, by a thousand knights, uniformly dressed in silk robes, and the next day the same knights appeared in new dresses no less splendid and expensive; and, in a following reign, it is stated that Sir John Arundel had no fewer than fifty-two complete suits of cloth of gold. This costly material, which is scarcely now an article of European consumption, though in considerable use among the splendid barbarians of the East, is mentioned in one of the Close Rolls for 1244, when Edward, the son of Otho, is commanded to buy a cape of red silk, with a broad orfraies, well embroidered with gold, or to have one made in all haste if he cannot find one to buy. In 1204, King John sends greeting to Reginald of Cornhill, directing him to allow the lady, the queen, his wife, to have a fur of meniver, a small brass pot, and eight towels, the cost of which should be repaid at the Exchequer. An order upon one tradesman for such different articles seems to indicate how much less trades were subdivided formerly than at

present. In a Close Roll, dated November 2nd, 1252, Edward of Westminster is ordered to give directions, without delay, for a cloth to be made twelve feet in length and six feet in breadth, the field to be studded with pearls, and on all parts of the cloth to be designs from the Old and New Testament. Philip Luvel is referred to for more particular directions, but no intimation is given of the purpose for which this splendid cloth was intended.

Cinnamon and Cassia.—These two words, which designate different qualities of the prepared bark of the cinnamon-tree, are both found in Exodus xxx., 23, 25. The cinnamon-tree is a native of a tropical climate, and the prepared bark was probably conveyed to Palestine from the Oriental Archipelago, by means of Phœnician merchants, (Genesis xxxvii., 25.) Herodotus informs us, that the word *kinnamon* was adopted by the Greeks from the Phœnicians, and in all likelihood the Hebrew term *kinnemon* or *hanam* has a similar origin. The country which produces an article of commerce very generally gives it the name which it obtains in other parts of the world; hence we must look to the language of a country which produces cinnamon for the origin of the terms that are employed to designate it by consumers. In the Malay language, cinnamon is designated by the words *kayee manis* (sweet wood), from which the Hebrew and Greek names of this spice may have been derived, as the cinnamon-tree is found in great abundance in the Malay Islands. *Kannema*, signifying sweet wood, is the Malabar name of this spice. In the Persian language it is called *kinnamon*, and in some parts of India it is known by the appellation of *dar Chinia*, which signifies the wood of China. Cinnamon was for a long time imported into Europe under the name of "China wood." The Malay word *kayee* (wood) seems to have been the origin of the Hebrew word *kiddah*, which is translated *cassia*, and the Latin term by which this quality of cinnamon is known in commerce is *casia-lignea*. In ancient times the unpeeled shoots or branches were conveyed to Europe, and sold wood and bark together; and hence, in all probability, is the origin of the adjunct "*lignea*." Moses was directed (Exodus xxx., 23, 25) to take of myrrh, *sweet* cinnamon, sweet calamus, cassia, and olive oil, certain quantities, and thereof to "make an oil of holy ointment, compound, after the art of the apothecary: it shall be an holy anointing oil." How was the art of the apothecary exercised in preparing the holy ointment or oil? Perhaps it was prepared by a process similar to that which the natives of India have from time immemorial practised to prepare odoriferous oils. The aromatic substances employed are coarsely powdered and put into an earthen vessel along with a certain quantity of fixed oil. Water, fully sufficient to cover the aromatics, is then added, and the vessel placed upon a fire to boil. During the process of ebullition the essential oil of the aromatics unites with the fixed oil, by which means it is impregnated with the peculiar odour of the seeds, barks, or other substances employed. Cinnamon is mentioned in the Song of Solomon, and in Proverbs, vii.; and cassia in Ezekiel xxvii., 19. The "sweet cane," mentioned in Isaiah xliii., 24, and Jeremiah vi. 20, in all probability is only another designation of cinnamon. Both passages imply an article of importation, and, therefore, not of native growth. The cinnamon which is imported from the peninsula of India, Sumatra, Java, &c., and the inferior quality of cinnamon, which is exported from Ceylon, are known in commerce by the name of cassia. For example, in 1816 Messrs. Palmer and Co., Calcutta, purchased the "rejected" cinnamon of the harvest of 1815 in Ceylon, which amounted to 34,672 lbs., for which they paid one sicca rupee two annas per lb. (about two shillings). Under the denomination of cassia the above quantity of cinnamon was no doubt imported into the ports of Europe, as the purchasers were prohibited from exporting it from India as cinnamon.

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MURILLO.



[*'The Young Beggar,' from Murillo.*]

BARTOLOMEO ETEBAN MURILLO, the most celebrated painter of the Spanish school, was born at or near Seville, in the year 1618. Having exhibited a very early inclination for the art, he was placed under the instruction of his uncle, Juan del Castillo. The favourite subjects of this artist were fairs and markets; and several pieces of this description were executed by Murillo previously to their separation, which took place
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in consequence of the removal of the uncle to Cadiz. The youth, being thus left to himself, was obliged to earn his subsistence by painting banners and small pictures for exportation to America. This sort of work did not, perhaps, advance him in the points most essential; but, as he had full employment, he acquired facility, and began to distinguish himself as an able colourist.

We know not how long Murillo continued thus to employ himself; but he was still very young when he happened to obtain a view of some works of Pedro de Moya, who was then passing through Seville on his way to Cadiz. In the latter days of Vandyke's life, De Moya had studied under him, and his pictures were painted in the style of that great artist, whom Murillo was thus inspired with a strong desire to imitate. This circumstance gave a new impulse to his zeal, and, perhaps, redeemed him from employing all his life in painting the paltry articles required for the colonial market. From De Moya he received such instructions as the limited stay of that artist in Seville permitted; and, from his conversation, Murillo probably imbibed the strong desire he afterwards felt of visiting Italy to improve himself by studying the works of the great masters. But his means were quite inadequate to meet the expenses of such a journey. A strong desire for improvement is, however, not easily discouraged by difficulties; and the youth, collecting all his resources, bought a good quantity of canvass, which he divided into a number of small squares, upon which he painted flowers and subjects of devotion, and with the produce of the sale set out upon his journey.

On his arrival at Madrid, Murillo waited upon Velasquez, his countryman, and communicated his plans to him. Velasquez was interested by the talents and zeal which the youth exhibited, and treated him with much kindness and consideration. Under the impression that the Escorial and the palaces at Madrid contained sufficient objects for useful study, this kind friend did not encourage Murillo's desire of proceeding to Italy. He obtained for him opportunities of studying many works of Titian, Paul Veronese, Rubens, and Vandyke, which belonged to the king and nobles of Spain, and several of which were copied by the young artist under his superintendence and instruction. Spanish authors are apt to exult in the fact, that Murillo never went out of his own country for improvement, not sufficiently considering the obligations he was under to the many works of the great masters which Madrid contained. Without the assistance of the example afforded by his great predecessors, however original his genius, the painter could never have attained the rank in his art at which he ultimately arrived.

After a stay of three years at Madrid, Murillo returned, in 1645, to Seville, with a mind enriched by study, formed by practice, and stored with the good counsels of Velasquez. At Seville his talents soon became known and properly appreciated. He was employed very shortly after his arrival to paint the little cloister of St. Francis; and the manner in which this work was executed filled his countrymen with astonishment and admiration. His picture of the Death of Santa Clara and that of St. James distributing Alms crowned his reputation. In the first he appeared equal to Vandyke as a colourist; and, in the second, a rival of Velasquez. They obtained him a multitude of commissions, which soon produced him a fortune more than independent. Murillo was one of those happy men whom success cannot spoil or injure. He never became careless. He gradually perfected his manner by giving more boldness to his pencil, without abandoning that sweetness of colouring which distinguished him from all his rivals. During his long life he was constantly employed, and enriched the churches of Seville, and other cities in the south of Spain, with numerous works. Having been invited to Cadiz to paint the grand altar of the Capuchins, he there executed his famous picture of the Marriage of St. Catherine. While employed on this picture, and when it was nearly completed, he met with an accident of which he continued to feel the effects until his death, which took place at Seville, in April, 1682.

The works of Murillo afford proof of the excellence to which the Spanish school had attained, and the real character of its artists; for although he profited by studying the works of foreign masters, he was not their imitator. His style was peculiarly his own. He copied his objects from nature, but combined them ideally. His back-grounds are generally confused and indistinct, and the parts very much blended together with a loose pencil and indeterminate execution; but most of them have a very pleasing effect, and perhaps the principal objects acquire a portion of their finish and beauty from this very circumstance. To the greatest merit as an historical painter, Murillo joined equal excellence in flowers and landscape. But perhaps it is in small pictures of familiar life, such as that from which our wood-cut is taken, that this eminent artist most completely succeeded. Many of his altar-pieces are very large, some of them sixteen or eighteen feet high, and containing an immense number of figures, as is required by such subjects as Christ feeding the multitude, St. John preaching, St. James distributing alms, &c. But in such pictures, skilfully wrought as they are, he does not appear to have penetrated the secret of grandeur of style. The expression is often of a mean character in the most dignified personages; but in the amiable and tender sentiments, which are expressed by the silent action of the human features, he was eminently successful. By the originality of his talent, Murillo claims rank among the first painters of every school. We do not find in him the dignity of Raphael, the grandeur of Caracci, nor the grace of Correggio; but, as an imitator of nature, if he is sometimes trivial and incorrect, he is always true,—always natural; and, in the sweetness, brilliancy, harmony, and freshness of his colouring, all his defects are forgotten.

We must here observe that at different periods the style of Murillo was of two different characters. The first distinguished for its energetic and living truth; the second for its softness, gentleness, and brilliancy of chiaro-scuro, though still combined with great truth of expression.

The picture of which in the foregoing page we have given a copy, was in the ancient royal collection at Versailles. It is called the "Young Beggar," and was four feet one inch in height, by three feet three inches in width. It is painted in his first style. The description in the splendid national work called the 'Musée Français,' from which we have copied our engraving, says:—"We must not examine the design of this picture with too much rigour. The subject may induce us to pardon some slight inaccuracies: it is the simplicity of the attitude, the relief given to the figure, the brilliancy of the light, the firmness of the touch, the vigour of the general tone, which render it a *chef-d'œuvre*. The head and all the naked parts are full of life. In the ragged clothes, which only half cover the body, the touch is bold and broad: in the flesh of the knees, legs, and feet, the careful artist has, on the contrary, expressed the most minute details. The roughness of the skin attests the idleness of this unhappy child; his morals are in some measure written upon the squalidness of his limbs. We see that the healthy wave never refreshes them. Such were in effect the habits of this proud, magnanimous, and indolent nation whom Providence had loaded with its favours, and whose institutions have rendered the greater part of these benefits useless—who consume much and labour little—and amongst whom so many wretches find this state of idleness the consolation of their misery. Some fruit in an old basket, an earthen pitcher, a few shrimps scattered on the ground, are the preparations or remains of a frugal repast. Every object is painted with as much art as the figure. The whole produces the most perfect illusion."

Four fine pictures of this artist were "given," by the city of Seville, to Marshal Soult, who made a present of them to Louis XVIII., in 1814; but they were among those works of art, the restitution of which was demanded by the Allies in 1815.

Gray the Poet.—The predominant bias of Gray's mind, says Mathias, was a strong attachment to virtue, to "the exercise of right reason," as he used to call it, in the words of Plato; and if any man were mentioned to him as a man of ability, of genius, or of science, he always inquired, "Is he good for anything?" No admiration of genius, no deference to learning, could subdue or even soften his aversion to the vicious, to the profligate, and the unprincipled.

HOMŒOPATHY.

This singular name is the representative of as singular a theory. Dr. Hahnemann, its inventor, supposes that diseases are to be cured by those remedies which would cause the same diseases in healthy persons; provided that these remedies are given in doses as minute as possible. This paradoxical system derives its name from the similarity of the medicine to the disease; *homoion* signifying in Greek the same, and *pathos* a symptom. Dr. Hahnemann, who is a German, has written several elaborate works in defence of his ingenious theory; one of them is called '*Organon der Heilkunst*,'—Organon of the Healing Art,—and was printed at Dresden in 1824. We shall give a brief notion of his mode of reasoning.

The author observes that, from the remotest times, physicians, and even the vulgar, have had some glimpses of the true system,—the real art of healing. Thus, in the book on Epidemic Diseases, which is attributed to Hippocrates, a case of cholera is mentioned which was cured by hellebore, a substance which is capable of causing cholera. The sweating-sickness raged in the fifteenth century, with unchecked fatality, until sudorifics were administered; after which, as Sennert observes, but few died. "How could musk," exclaims Dr. Hahnemann, "be almost a specific in the spasmodic asthma, if it were not that musk can itself cause paroxysms of suffocating tightness of the chest?" Again, it is by its homœopathic virtue that the cow-pox prevents the occurrence of small-pox, for the symptoms of the two diseases are similar; but, from the mildness of the cow-pox, it is unable to remove the antagonist disease if it already has possession of the human frame, and can therefore act only as a preventive. This method of curing beforehand is possible in a few other cases; for instance, wearing sulphur in their clothes will secure workers in wool against the kind of itch to which they are subject; and an infinitely small dose of belladonna (deadly nightshade) is a preventive of scarlatina when it rages epidemically, and excites upon the skin a scarlet eruption, somewhat resembling that of the disease which it scares away.

Nor has the true system been utterly unknown in domestic practice. Thus it is the custom to rub frozen limbs with snow, and (in Germany) to lay frozen sour-croût upon them. The cook, too, who has had the misfortune to scald his hand with boiling sauce, holds it near the fire, regardless of the temporary increase of suffering; for he well knows that, in a short time, perhaps in a few minutes, the burnt place will be sound and free from pain. Dr. Kentish, who practised among miners, and had numerous opportunities of treating burns, found that they did best when stimulated with turpentine and spirits-of-wine. John Bell gives a case of a lady whom he attended, who had scalded both her arms; one was moistened with spirits of turpentine and the other put into cold water. The former was cured in half an hour, but the other one continued in

pain for six hours; for as soon as it was taken out of the water the pain was renewed.

But besides these cases, in which the practice was right, some physicians had a slight conception of the true theory. Thus the author of one of the books ascribed to Hippocrates remarks, that, by vomiting, vomiting is made to cease. Detharding made out that senna-tea cures colic by its power of exciting colic in the healthy; and Bouldue saw that rhubarb cured diarrhœa by means of its purgative quality. Stoerck asks whether, since Stramonium (thorn-apple) produces delirium in the healthy, it would not be worth trying if it will restore the senses of the delirious? But Stahl, a Danish regimental physician, speaks out his sentiments on this subject in the clearest manner, and observes, that the common rule of curing diseases by remedies of an opposite kind is totally erroneous; and that he is convinced that diseases yield to remedies which produce a similar malady; thus burns are to be cured by approaching the fire,—frozen limbs to be treated with the application of snow and the coldest water,—inflammation and contusions with spirits; and he had cured acidity of the stomach with a very small dose of sulphuric acid, in cases where a multitude of absorbent powders had been used in vain.

Dr. Hahnemann observes that others had been near the great truth. To us it appears that Stahl had altogether discovered the great truth, if it is one; but that to Hahnemann we must give praise for the unwearied zeal with which he has disseminated his principles for more than thirty years.

By these, and a thousand other instances of the same kind, Dr. Hahnemann proves the truth of the first principle of homœopathy; and as it is an established law of nature, he thinks it unnecessary to waste time by hypothetical explanations of it: yet he supposes it possible that the artificial disease, which expels the original one, may be more easily driven out by the vital powers than its predecessor. All that is required, therefore, to cure a disease is to find a similar remedy, and to administer it in such a dose as shall cause an extremely slight and temporary aggravation of the symptoms; the slighter the better; and hence, the smaller the dose of the remedy, the better, provided this slight aggravation takes place. Hence, in homœopathic practice, it is not uncommon to hear of such a dose as the millionth, the trillionth, or even the decillionth of a grain. If we were asked our opinion as to the truth of this curious and ingenious theory, we should say, that we have no doubt that people get well after these infinitely small doses, though we doubt very much if they get well by means of them; and we think the great value of homœopathy to consist in its demonstrating that diseases may be cured by regimen and repose, which not merely the opinion of the vulgar, but the common run of practitioners, would condemn to long courses of medicine.

Since the above was written, it has been stated in the '*London Medical and Surgical Gazette*,' that the homœopathic system has received a severe blow at Vienna. The physicians practising according to this doctrine have been visited by the police, the medicines have been seized, and the whole of the homœopathic pharmacy has been suppressed. Many of the inhabitants, favourable to this mode of practice, have, however, determined upon petitioning the emperor, that they may be permitted to live and die homœopathically.

* The following explanation may be useful to some persons:—a million multiplied by a million is called a bilion, and is written thus,—1,000,000,000,000, or, more shortly, thus,—(1,000,000)²; this product again multiplied by a million is called a trillion, and written thus,—(1,000,000)³; and a million raised to the tenth power is called a decillion, and written thus,—(1,000,000)¹⁰; a decillionth would therefore be written thus,— $\frac{1}{(1,000,000)^{10}}$.

SOME ACCOUNT OF THE CACAO TREE AND ITS PRODUCTS,

[From a Correspondent.]



[Cacao Tree.]

CACAO-BEANS, from which chocolate is made, and which, prepared in lumps or cakes, or in powder, is sold in the shops under the name of cocoa, are the seeds of the *Theobroma cacao* of botanists. This tree grows to the height of fifteen or sixteen feet. The fruit (see the wood-cut) resembles a cucumber, and is commonly about three inches in diameter. It is smooth on the outside, and has a yellowish red colour. The seeds are known to be ripe by their rattling when the capsule is shaken. The cacao-tree bears leaves, flowers, and fruit all the year through. It is a native of the tropical regions of America, where it is largely cultivated; and it is also cultivated in many of the West India Islands.

Cacao-beans are frequently misnamed cocoa-nuts, by which means they are confounded with coco-nuts (*cocos nucifera*), a fruit which is often mis-spelled cocoa-nuts. On account of these mistakes in the spelling of the fruits of the two trees, many persons suppose that the manufactured seeds of the cacao-tree, or chocolate, is the produce of cocoa-nuts.

The cacao-tree was cultivated by the aboriginal inhabitants of America long before it was discovered by Columbus. They made a beverage of the seeds, but authorities are divided in regard to how it was prepared. From time immemorial the seeds have been employed as money in some parts of America. Choco-

late seems to have been first manufactured in Mexico, and the Carole ladies were for a long time so fond of the beverage that it was habitually served to them even in church by their slaves.

Chocolate is manufactured in the following manner:—the cacao-beans are carefully examined, and the sound and good only selected. They are then dried, and the shells removed. The kernels are then submitted to the fire for the purpose of being roasted. This operation being finished, the seeds are bruised upon a hot stone until they form an oily paste. The requisite quantities of sugar and spices,—generally finely-powdered cinnamon and vanilla,—are then added. When the mixture is formed into a homogeneous compound, it is put into polished iron moulds, of different sizes. In the manufacture of chocolate, various nutritive substances are sometimes used, such as salop, arrow-root, tapioca, &c., and some manufacturers have the art of giving it the odour of coffee. It is said that imported chocolate is sometimes adulterated with flour and Castile soap. Cacao-paste, the produce of, and imported from, a British possession, pays a duty of 4d. per lb. upon importation: in 1830 it was 1s. 9d. per lb.

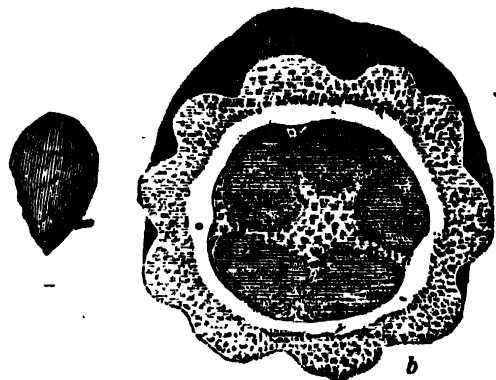
Cacao-beans, after being dried, or partially roasted, shelled, and ground in a mill, are beginning to be much used in this country. Two table spoonful of the powder may be added to a pint and a half of milk-and-

water; after boiling, let the pot simmer over the fire for about ten minutes, when the beverage will be fit for use. Sugar and milk are to be added as required. Cacao-beans, imported from a British possession, pay a custom duty of 2d. per lb., formerly it was 6d. per lb.



[Fruit of the Cacao-Tree.]

The thin pellicle or shell that covers the beans, and which is separated before they are ground or powdered, contains a considerable quantity of mucilage, and the bitter principle of the cacao. Some persons prefer a beverage made from the shells to a preparation made from the beans. The shells are said to be greatly employed as a substitute for the beans in Switzerland, Belgium, and Ireland. They are charged an import duty of 1d. per lb.



[a, Cacao-bean; b, Transverse Section of the Fruit.]

POETS IN PERSIA.

—“Who now
Enters the chamber, flourishing a scroll
In his right hand, his left, at every step,
Brushing the floor with what was once a hat
Of ceremony * * *

At length arrived, and with a shrug that pleads
“Tis my necessity!” he stops and speaks,
Screwing a smile into his dinnerless face:
“I am a poet, Signor:—give me leave
To bid you welcome. Though you shrink from notice,
The splendour of your name has gone before you;
And Italy, from sea to sea, rejoices,
As well, indeed, she may! But I transgress.
I, too, have known the weight of praise, and ought
To spare another.”

Saying so, he laid
His sonnet, an impromptu, on my table,
And bowed and left me; in his hollow hand
Receiving a small tribute.” ROBERTS.

IN thus graphically describing a scene in Italy,—the most poetical nation of Europe,—the poet has, unconsciously, described with equal truth a scene of frequent occurrence in Persia,—the most poetical of the East. The whole kingdom is inundated with such poetical mendicants, who lie in wait, not only for the public functionaries and wealthy men of their own country, but for all strangers whose rank and appearance afford them ground to hope the least recompense for their lays. The latter are their especial prey; and the stranger, who may be at first amused, is soon annoyed and irritated at the frequency of such attacks on his purse, and the amazing perseverance of the assailants, whom no professed ignorance of the language, and no expression of dislike for such productions, can discourage, and whom one success only stimulates to further attempts. In his ‘History of Persia,’ (a work of which we make considerable use in preparing this article,) Sir John Malcolm states, that a poet of this class came fifty miles from Shiraz to welcome him with a complimentary ode, beautifully written upon ornamented paper.

The existence of such a number of poetasters has been generally preceded by the creation of good poetry, and by a general diffusion of poetical taste. Of few nations is this more true than the Persian. Almost the only poets of high name in the East were Persians, and their verses are as household words from the palace of the king to the cabin of the peasant. Indeed, common conversation is so profusely interlarded with poetical quotations, that the effect would be nauseous were it not for the unaffected felicity with which they are usually introduced; and were it not that the usual style of conversation is so florid among the Persians as to weaken, if not destroy, the line of demarcation between conversational and poetical expression, which most other languages exhibit.

A certain measure of education is obtained with much facility in the principal cities of Persia; and if a young man prefers a life of indolence to one of active industry, the respect in which the character of a poet is held strongly tempts him to assume the name.

“A few fortunate votaries of the muses enjoy the smiles of fortune, but the great majority of poets here, as in other countries, are poor. While some favoured poets are chaunting the wonderful deeds of the king, or of the principal chiefs, or composing ‘dewans,’ or collections of odes on the mystical subject of divine love; others are contented with panegyricizing the virtues, wisdom, bravery, and discernment of all who bestow their bounty upon them, or allow them to partake of the good things of their table. They also make epigrams to amuse their patrons, and are alike ready to recite their own verses or to quote the finest passages of the national poetry.”—*Malcolm*.

The most distinguished Persian poets are Firdousee and Nizamee as epic poets; Sadi in didactic composition, and Hazif, Jami, Rudiki, Anveri, in lyrical and mystical verse. For this last species of poetry the Persians have an especial relish, and it is much more cultivated at present than any other. There are some pointed epigrams, but no such thing as a regular satire in the language. The freedom of observation and of expression essential to this class of compositions would not be tolerated in such a state of society and government as exists in Persia; and the most, therefore, that has been attempted is to convey some satirical allusion under the cover of a fable or apologue. The severer taste of Europeans is offended by the redundancy of ornament which the Persian poetry exhibits. It is characterized rather by richness of fancy than by vigour or tenderness of feeling, and it is almost completely destitute of those forcible or delicate touches by which master hands can strike and awaken untouched chords in the human heart.

From this excess of ornament and inflation of style, which may be regarded not only as the besetting sin but as the characteristic of Persian poetry, there is no Eastern poet more exempt than Firdousee, in whose great work, the 'Shah-Nameh,' the most fastidious European reader meets with passages of exquisite beauty and tenderness, which even the depraved taste of the Persians can relish, although they consider his peculiar excellence to lie in the description of battles.

As the author of this celebrated work occupies the first place among Persian poets, and may, in many respects, be compared to our own Spenser, we imagine that a short account of him may not be uninteresting to the general reader. For the means of supplying this we are indebted chiefly to the introduction prefixed to Mr. Atkinson's translation of the 'Soohrah,' an episode in Firdousee's great work the 'Shah-Nameh,' or Book of Kings.

Mahmood, Sultan of Ghizni, the famous conqueror of India, began to reign about the year 977. This prince to his other glories added that of being a very munificent patron of literature, and his court was, consequently, the resort of distinguished men from various parts of his widely extended empire. The idea once occurred to him of having a history of the kings of Persia, from the earliest times to his own, prepared in verse. In order to ascertain the respective merits of the various competitors for this employment, the king selected seven romantic episodes from an old chronicle, a copy of which had lately been discovered, and delivered them to seven of the principal poets at his court to be composed in verse. Unsoree, to whom the beautiful story of Roostem and Soohrah was allotted, performed his part so much to the satisfaction of Mahmood that he was engaged to arrange the whole in verse.

Firdousee was at that time at Musheed, his native city, employing himself with equal diligence and success in the cultivation of his poetical talents. Having heard of the determination of the king, he succeeded in obtaining a copy of the chronicle, and, applying himself with great zeal to the task, he soon produced a splendid description of a battle, which still forms a much admired passage of the 'Shah-Nameh.' This performance was so generally read, and so much talked of, that it was not long before the sultan heard of his merits, and immediately sent him an earnest invitation to his court. The poet went; and soon after his arrival executed another battle-story, which Mahmood read with admiration and delight, and, without hesitating a moment, assigned to him the projected undertaking. He also ordered his chief minister to pay him a thousand miskals for every thousand distichs, and, at the same time, bestowed upon him the name of Firdousee*, "because he had diffused over his court the delights of Paradise." It is pleasing to add, that Unsoree liberally acknowledged the superiority of his great rival's genius, and resigned the undertaking to him without a murmur.

The vizier, in compliance with the injunctions of the sultan, offered to pay the sums as the work proceeded; but the poet preferred waiting until the completion of his engagement, in the hope that the large amount which would then be due to him, would afford him the means of gratifying a wish he had long indulged, of doing something of importance for the benefit of his native city. But it appears that Firdousee wanted that pliancy of disposition and dependency of spirit which the atmosphere of an Eastern court requires. With a man of this character, the proud and narrow-minded, though able, Vizier, soon became offended, and exerted himself to destroy his credit. Several passages in his poems were extracted and invidiously commented upon as con-

* "Firdousee" signifies Paradise. We are not aware that his previous name is known.

taining sentiments adverse to the true faith; and were alleged to convict him of being an impious philosopher, a schismatic, and a follower of Ali. The petty malice of the minister was probably not without effect within the limits of the court; but beyond, it was powerless. The poet rose in the public esteem. The progress of the splendid national monument he was erecting was watched with admiration; and presents poured in upon him from every quarter. The composition of 60,000 couplets appears to have occupied Firdousee for thirty years. On its completion, the sultan, who was fully sensible of the importance and value of the performance, and proud of the renown which his own connexion with it promised, ordered, as it is said, an elephant-lad of gold to be sent to the author. But this munificent recompense, which only the spoiler of India could have afforded, was intercepted by the malignant minister, who sent to the poet instead 60,000 silver dirhems*. Firdousee was in the public bath when the money was brought to him; and, on opening the bags, and finding that they contained only silver, he was so greatly enraged at the insult that, to testify his scorn, he divided the whole sum, on the spot, between the keeper of the bath, the vender of refreshments, and the slave who had brought it. "The sultan shall know," he exclaimed, "that I have not bestowed the labour of thirty years on a work to be rewarded with dirhems."

When the king became acquainted with this circumstance, he was much exasperated at the conduct of the vizier; but that ingenious person had so much adroitness, and so much influence with Mahmood, that he succeeded not only in exculpating himself, but in transferring all the blame to the poet, who was also charged with insulting and disrespectful behaviour towards his sovereign and benefactor. Mahmood, thus stimulated to personal resentment, and not questioning the veracity of the minister, issued an order that Firdousee should, on the following morning, be trampled to death under the feet of an elephant. The unhappy poet, when he heard of this order, hurried, in the utmost consternation, to the royal presence, and, falling at the feet of the sultan, begged for mercy, at the same time pronouncing an elegant eulogium on the glories of Mahmood's reign and the generosity of his heart. That heart was touched by the poet's agitation and softened by his praise, and the order for his execution was recalled.

But the wound thus inflicted was too deep to be borne without a murmur. Firdousee went home, and, under the existing impulse of his feelings, penned a satire on the sultan, which is still extant, and is only remarkable as showing the bitterness of his resentment, and the keenness with which he felt the injustice and neglect with which he had been treated. He instantly fled from the city and hastened to Bagdad, where he received the most honourable reception and entertainment from the Caliph Ul Kadir Billah, in whose palace he added 1000 couplets to the 'Shah-Nameh,' for which he was rewarded with a robe of honour and 60,000 deenars.

Meanwhile, the Sultan of Ghizni had discovered that his reputation as a patron of literature had been compromised by the conduct of his minister, whom he, therefore, dismissed from his office and banished from the court. Being then anxious to make all the reparation in his power for the injustice of which he had been guilty, he forwarded to Bagdad a present of 60,000 deenars†, and a robe of state, accompanied by apologies for his former conduct. But this atonement came too late to benefit its object. Firdousee had removed to his native city, and had recently died there when the money and the robe arrived.

* Equal to 1375*l*. The sum due, at 1000 miskals for 1000 couplets, was 30,937*l*.
† Equal to 27,500*l*.

This is the amount of all that is now known of the author of the 'Shah-Nameh;' and it has an interest beyond that which it possesses as the memoir of an individual, from the accurate view it affords of the position which a man of genius, from the earliest time until now, has been found to occupy under the despots of the East, and the influence of which on Oriental literature it would be interesting to trace. The history of Firdousee is, in its outlines, the general history of men of letters in Asia; and, viewing it thus, we have been led so to extend the notice as to preclude ourselves from the present mention of several particulars on the general subject which we had intended to state.

Local Attachment.—In the remote village of Petit Borneand, in a wild valley above Bonneville, is a very valuable painting by Guido, of our Saviour's removal from the cross. A native of this place lived many years at Rome in the service of a cardinal; at last, becoming old, he wished to return and end his days in the land of his fathers. The cardinal gave him his leave; adding, that, in reward for his long and faithful services, he wished him to choose out of his palace any one article he might wish to take away with him. The domestic said he should choose the painting of the "Removal from the Cross," which he had often looked at in the cardinal's gallery, as he wished to give it to the church of his native village. The cardinal was unprepared for this request; however, as he had promised, he allowed his servant to take the painting away. This circumstance was honourable to both.

The Grey Parrot.—The grey parrot, like many others of its tribe, often lives to a great age, and we are told of individuals attaining to 50, 60, or even 100 years. According to Le Vaillant, one which lived in the family of Mr. Moninck Huyser, at Amsterdam, for 32 years, had previously passed 41 with that gentleman's uncle, who bequeathed it to his nephew; and there can be little doubt that it must have been at least 2 or 3 years old at the time of its arrival in Europe. When Le Vaillant saw it, the bird was in a state of complete decrepitude; and, having lost its sight and memory, had lapsed into a sort of lethargic condition, and was fed at intervals with biscuit dipped in Madeira. In the days of its vigour it used to speak with great distinctness, repeat many sentences, fetch its master's slippers, call the servants, &c. At the age of 60, its memory began to fail, and instead of acquiring any new phrases, it began very perceptibly to lose those which it had learned, and to intermix, in a discordant manner, the words of its former language. It moulted regularly once a year, till the age of 65, when the red feathers of the tail were supplied by yellow ones, after which no other change of plumage took place.

THE ARGAND LAMP.

EXCEPTING the essential articles of food and shelter, there is perhaps scarcely anything more necessary to our comfort than artificial light. Without its aid, a considerable portion of time in the climates inhabited by civilized men must be wasted in idleness; and although the privation might not be felt by the listless dwellers in the torrid zone, to us who live in the region of unequal days and nights, the want of it would operate as a check upon improvement, and a great bar to the provision of the necessaries of life.

In the earliest ages of the world, and in the beautiful climate of "the cradle of mankind," artificial light would only occasionally be useful; but as the human race spread itself into ruder climes, its necessity became apparent. At first, the fires which were kindled for warmth would supply sufficient light for such occupations as were then followed: the more inflammable matters, such as resinous woods and bituminous earths, were soon found to give more light and to be more portable than the masses of fuel used in heating dwellings. The resinous wood gradually became a torch, or candle, and was wrapped in rags dipped in oil or fat, or covered with pitch or other exudation from pine-trees. Such torches were in use

among the Romans, as appears from the expressions "pineæ tunda" and "piceum lumen," so familiar to readers of ancient authors.

As soon as vessels were constructed capable of containing oil, the rags or strings of cotton, flax or tow, which had helped to make the torch, would now be more conveniently burned on the surface of the oil: the necessity of some contrivance to fix this wick to some one part of the vessel would soon be apparent, and thus the lamp was formed, such as we see it in Egyptian, Etruscan, Greek and Roman sculptures and paintings, and as it remained almost without improvement to our own times. The most exquisite taste was developed in the construction of these lamps, and, as far as beauty is concerned, nothing could possibly be desired.

We give at the end of this article a representation of two of these lamps, which were found in the ruins of Pompeii, and of which the following description is taken from the volumes upon that long buried city in the 'Library of Entertaining Knowledge.' "Of the two candelabra here given one is of the simplest form: the other deserves notice on account of the ingenious construction by which it can be taken to pieces for the convenience of transport. The base is formed of three goats' legs, each having a ring at the end, and a ring on each side. The centre piece is attached to the side pieces by rivets, 3, 4, round which these rings are allowed to turn, so that the three either lie parallel when the candelabrum is taken to pieces, or may be made to stand at equal distances in the circumference of a circle, in which case the two exterior rings lap over each other, and are united by a moveable pin. The end rings, 5, 5, which are placed at different heights, as shown at *h*, will then be brought into the same vertical line; and the round pin, *C*, which terminates the stem, passes through them, and is secured by a pin, 7, passing through the hole, 8, which keeps the whole tight. The shaft is square and hollow, terminated by two busts, placed back to back, and surmounted with a kind of capital. Within this a smaller shaft, *c*, plays up and down, and is adjusted at the desired height by a pin, *f*. The busts represent Mercury and Perseus."

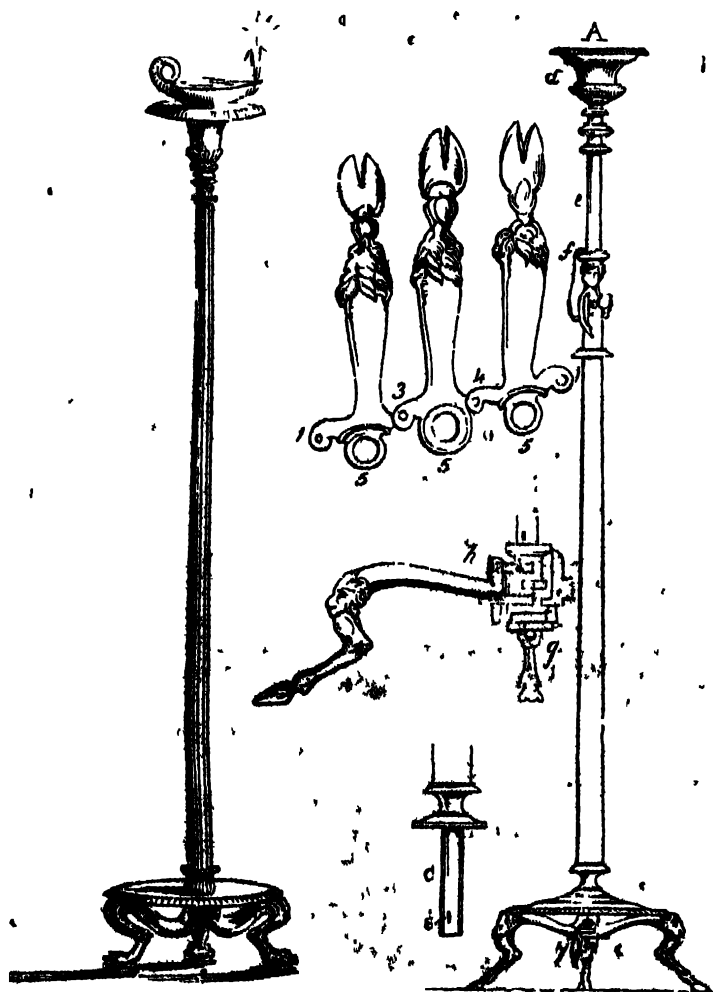
But in all these lamps the principle of the burner was the same: and although many ingenious contrivances were adapted to this part, they all had in view the equable flow of oil to the wick, or the maintenance of the oil at the same height, with scarcely an attempt to remedy the most important defects,—the want of a full supply of air to the flame. This alteration was proposed and perfected by M. Argand, a citizen of Geneva, about fifty years ago. In order to understand fully the nature of the improvement effected by him, it must be remembered that a plentiful supply of air is necessary to the existence of flame. A small wick produces of course a small flame; but, in consequence of that smallness, almost every particle of the flame is in contact with the air, and the light is very brilliant. By increasing the size of the wick, the flame is enlarged; but then the interior portion, which is deprived of air, is but imperfectly inflamed; the light is in consequence brown and dull, and much of the oil burned passes off in smoke without being inflamed at all. The only mode found of increasing the body of flame, without destroying its brilliancy, was by increasing the number of little wicks, which were placed side by side in a line. This produced a good light, but it was unsightly and troublesome to arrange, and by no means so brilliant as might be expected from the same quantity of light in a compact form. It occurred to Argand that if this line of wicks could be placed in a circle, and a current of air admitted through the interior of the circle, while the outside air was applied to the external surface, the power of a large wick would be obtained with all the brilliancy of a small one. This was effected in the following manner: A

small tube, about three inches long and half an inch in diameter, was soldered at one end, withinside another tube of the same length, but double the size, leaving a space between the two, open at one end and closed at the other. A wick was formed by a piece of cotton woven round without a seam, and fixed to a brass ring fitted to the space between the two tubes, and raised or depressed by a worm or groove cut in the inner tube, or by a rack and pinion. The oil was admitted to the wick by a pipe connected with a reservoir, and passing through the outer tube. Thus was formed a ring of light, but the lamp did not at first answer the expectation of the inventor: the light was not brilliant in proportion to its size, and could not be got to rise much above the wick. Every attempt to increase its height by a more copious flow of oil, or by raising the wick, only produced a volume of smoke. This defect would have been fatal had not accident discovered a remedy. This was the glass chimney, which, by increasing the current of air, produced a complete combustion of oil, and as great a light as could possibly be derived from the quantity consumed. This accidental discovery is thus related by the younger brother of Argand, who hit upon the glass chimney:—"My brother had long been trying to bring his lamp to bear. A broken-off neck of a flask lying upon the chimney-piece, I happened to reach it over to the table, and to place it over the circular flame of the lamp: immediately it rose with brilliancy. My brother started from his seat with ecstacy, rushed upon me in a transport of joy, and embraced me with rapture." Thus was the Argand lamp formed, the most important improvement discovered in

artificial light before the introduction of gas, and which has not since been improved upon. More convenient arrangements have been made to supply oil, more elegant forms have been adopted, and all unnecessary shadows obviated, but the burner remains essentially the same as Argand formed it.

This invention received almost immediately the support to which so useful a discovery was entitled. The Argand lamp was adopted by all to whom a good and steady light was desirable. Persons engaged in delicate operations requiring much light, as engravers, watchmakers, &c., and who had hitherto been compelled to suspend their occupation at the approach of twilight, could now work by night as well as by day. The experimental chemist, too, was put in possession of a powerful aid in the prosecution of his investigations by the use of this lamp, which gave a considerable and easily graduated heat, much more manageable than that of any furnace that could be constructed.

Several plans have been devised for comparing the intensity of different lights, but the best seems to be the following:—Fix a large piece of pasteboard, with a small hole in it, about a foot and a half from a white wall, and let the two lights to be compared stand upon a table at some distance from each other, so that the light from each may cast a bright spot upon the wall through the hole in the pasteboard. Let the brightest light be moved from the wall until both the spots acquire the same intensity: then measure the distance of both lights from the wall, square the distance, and the result will be the proportionate quantity of light given by each.



[Candelabra found at Pompeii.]

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HOGARTH AND HIS WORKS.



[Portrait of Hogarth, painted by himself, in the National Gallery.]

Who has not heard of Hogarth? Who has not pored over some one of his extraordinary prints, begrimed perhaps with the dust and smoke of a century, in the parlour of some country inn, or "hung upon the walls of a great hall in an old-fashioned house?" Some of the original paintings of Hogarth—for he was a painter
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as well as an engraver—are familiar to residents in London, as forming part of the public collection at the National Gallery. But still Hogarth is not universally known and appreciated—his works have not yet fairly got into the hands of the people. The original prints are now scarce and expensive; the various republications of them in folio and quarto are nearly as dear. The small edition lately published by Mr. Major, in one volume octavo, and the edition in shilling numbers, now publishing by Messrs. Jones, are excellent in their way, but they are still not likely to reach the great body of the population. We propose, therefore, during the present year, to give copies in 'The Penny Magazine' of from twenty to thirty of the best prints of Hogarth, engraved in wood by Mr. Jackson, and of as large a size as our work will admit. By this means, and with accompanying descriptions, we hope to make Hogarth understood by many thousands of readers. We say of readers, for we quite agree with Mr. Charles Lamb, the author who has written best upon the works of this great satirist, that "his graphic representations are indeed books: they have the teeming, fruitful, suggestive meaning of words. Other pictures we look at,—his prints we read."

For obvious reasons, the selection we shall make from the works of Hogarth will be somewhat more limited than if these subjects were published in a separate form. Although the moral tendency of Hogarth's works is unexceptionable,—although he laboured all his life to illustrate the axiom, that

"Vice is a monster of such frightful mien
As, to be hated, needs but to be seen,"

the change in our taste since Hogarth drew (and, in many respects, the change is an improvement) prevents the republication of many of his most capital performances in a work of such general circulation as the 'Penny Magazine.' That our intentions may not be mistaken, we beg to give the following list of the Prints which have been decided upon, including those of the present Number:—

1. PORTRAIT OF HIMSELF.
2. MARRIAGE A-LA-MODE.—THE SALOON.
3. THE COCKPIT.
4. THE RAKE'S PROGRESS.—THE LEVEL.
5. ————— THE GAMING HOUSE.
6. THE ELECTION.—THE FRANK.
7. ————— THE CANTAB.
8. ————— THE POLL.
9. ————— THE CHAIRING.
10. INDUSTRY AND IDLENESS, PLATE I.
11. ————— II.
12. ————— III.
13. ————— IV.
14. ————— V.
15. ————— VI.
16. ————— IX.
17. ————— X.
18. THE ENRAGED MUSICIAN.
19. THE DISTRESSED POET.
20. BARR STREET.
21. GIN LANE.
22. THE COUNTRY INN YARD.
23. A MIDNIGHT CONVERSATION.
24. THE POLITICIAN.

Those who are acquainted with the works of Hogarth will be aware that in this selection we have not introduced a single print that can offend the most fastidious eye. In many of them there will be found representations of human nature in its degradations of vice and ignorance; but such representations are redeemed from the possibility of exciting disgust by the exquisite skill of the artist. Mr. Lamb has put in a striking point of view the power of Hogarth in raising the humblest and most wretched scene into a subject of the highest moral interest. We should injure the effect of the passage if we were to attempt to give its substance merely:—

* 'Works of Charles Lamb,' vol. ii., p. 94.

"It is the fashion with those who cry up the great historical school in this country, at the head of which Sir Joshua Reynolds is placed, to exclude Hogarth from that school, as an artist of an inferior and vulgar class. Those persons seem to me to confound the painting of subjects in common or vulgar life, with the being a vulgar artist. The quantity of thought which Hogarth crowds into every picture would alone *unvulgarize* every subject which he might choose. Let us take the lowest of his subjects,—the print called 'Gin Lane.' Here is plenty of poverty and low stuff to disgust upon a superficial view; and, accordingly, a cold spectator feels himself immediately disgusted and repelled. I have seen many turn away from it, not being able to bear it. The same persons would, perhaps, have looked with great complacency upon Poussin's celebrated picture of the 'Plague at Athens.' Disease, and death, and bewildering terror, in *Athenian garments*, are endurable; and come, as the delicate critics express it, 'within the limits of pleasurable sensation:' but the scenes of their own St. Giles's, delineated by their own countryman, are too shocking to think of. Yet if we could abstract our mind from the fascinating colours of the picture, and forget the coarse execution (in some respects) of the print, intended as it was to be a cheap plate, accessible to the poorer sort of people, for whose instruction it was done, I think we could have no hesitation in conferring the palm of superior genius upon Hogarth, comparing this work of his with Poussin's picture. There is more imagination in it,—that power which draws all things to one,—which makes things animate and inanimate, beings with their attributes, subjects and their accessories, take one colour, and serve to one effect. Everything in the print, to use a vulgar expression, *tells*. Every part is full of 'strange images of death.' It is perfectly amazing and astounding to look at. Not only the two prominent figures, the woman and the half-dead man, which are as terrible as anything which Michael Angelo ever drew, but everything else in the print contributes to bewilder and stupify,—the very houses, as I heard a friend of mine express it, tumbling all about in various directions, seem drunk,—seem absolutely reeling from the effect of that diabolical spirit of phrenzy which goes forth over the whole composition. To show the poetical and almost prophetic conception in the artist, one little circumstance may serve. Not content with the dying and dead figures, which he has strewed in profusion over the proper scene of the action, he shows you what (of a kindred nature) is passing beyond it. Close by the shell, in which, by the direction of the parish beadle, a man is depositing his wife, is an old wall, which, partaking of the universal decay around it, is tumbling to pieces. Through a gap in this wall are seen three figures, which appear to make a part in some funeral procession which is passing by on the other side of the wall, out of the sphere of the composition. This extending of the interest beyond the bounds of the subject could only have been conceived by a great genius."

It is our intention, in the present Number, to give a short notice of Hogarth's Life,—to accompany his portrait; and to offer a few remarks upon the two subjects which we have selected as introductory specimens of the general character of his compositions. The facts of his life we shall abridge from a memoir in a recent number of the 'Gallery of Portraits,' published by the Society for the Diffusion of Useful Knowledge.

"I was born," says Hogarth in his Memoirs of himself, "in the city of London, November 10, 1697. My father's pen, like that of many authors, did not enable him to do more than put me in a way of shifting for myself. As I had naturally a good eye, and a

* At the late Mr. Hope's in Cavendish Square.

fondness for drawing, shows of all sorts gave me uncommon pleasure when an infant; and mimicry, common to all children, was remarkable in me. An early access to a neighbouring painter drew my attention from play; and I was, at every possible opportunity, employed in making drawings. I picked up an acquaintance of the same turn, and soon learnt to draw the alphabet with great correctness. My exercises when at school were more remarkable for the ornaments which adorned them, than for the exercise itself. In the former I soon found that blockheads with better memories could much surpass me; but for the latter I was particularly distinguished.

To this account of Hogarth's childhood we have only to add, that his father, an enthusiastic and laborious scholar, who, like many of his craft, owed little to the favour of fortune, consulted these indications of talent as well as his means would allow, and bound his son apprentice to a silver-plate engraver. But Hogarth aspired after something higher than drawing ciphers and coats-of-arms; and before the expiration of his indentures he had made himself a good draughtsman, and obtained considerable knowledge of colouring. It was his ambition to become distinguished as an artist; and not content with being the mere copier of other men's productions, he sought to combine the functions of the painter with those of the engraver, and to gain the power of delineating his own ideas, and the fruits of his acute observation. He has himself explained the nature of his views in a passage which is worth attention:—

'Many reasons led me to wish that I could find the shorter path,—fix forms and characters in my mind,—and instead of copying the lines, try to read the language, and, if possible, find the grammar of the art by bringing into one focus the various observations I had made, and then trying by my power on the canvass how far my plan enabled me to combine and apply them to practice. For this purpose I considered what various ways, and to what different purposes, the memory might be applied; and fell upon one most suitable to my situation and idle disposition; laying it down first as an axiom, that he who could by any means acquire and retain in his memory perfect ideas of the subjects he meant to draw, would have as clear a knowledge of the figure as a man who can write freely hath of the twenty-five letters of the alphabet and their infinite combinations.' Acting on these principles, he improved by constant exercise his natural powers of observation and recollection. In his rambles among the motley scenes of London he was ever on the watch for striking features or incidents; and not trusting entirely to memory, he was accustomed, when any face struck him as peculiarly grotesque or expressive, to sketch it on his thumb-nail, to be treasured up on paper at his return home.

For some time after the expiration of his apprenticeship, Hogarth continued to practise the trade to which he was bred,—engraving shop-bills, coats-of-arms, figures upon tankards, &c. Soon he procured employment in furnishing frontispieces and designs for the booksellers. The most remarkable of these are the plates to an edition of *Hudibras*, published in 1726. About 1728 he began to seek employment as a portrait painter. Most of his performances were small family pictures, containing several figures, which he calls 'Conversation Pieces,' from twelve to fifteen inches high. These for a time were very popular, and his practice was considerable, as his price was low. His life-size portraits are few.

In 1729, Hogarth contracted a stolen marriage with the only daughter of the once fashionable painter, Sir James Thornhill. The father, for some time implacable, relented at last; and the reconciliation, it is said,

was much forwarded by his admiration of the 'Harlot's Progress,' a series of six prints, commenced in 1731, and published in 1734. The novelty as well as merit of this series of prints won for them extraordinary popularity; and their success encouraged Hogarth to undertake a similar history of the 'Rake's Progress,' in eight prints, which appeared in 1735. The third, and perhaps the most popular of these pictorial novels, 'Marriage à la Mode,' was not engraved till 1745.

The merits of these prints were sufficiently intelligible to the public; their originality and boldness of design, and the force and freedom of their execution, won for them an extensive popularity and a rapid and continued sale. The *Harlot's Progress* was the most eminently successful, from its novelty rather than from its superior excellence. Twelve hundred subscribers' names were entered for it; it was dramatized in several forms; and we may note, in illustration of the difference of past and present manners, that fan-mounts were engraved, containing miniature copies of the six plates. The merits of the pictures were less obvious to the few who could afford to spend large sums on works of art; and Hogarth, too proud to let them go for prices much below the value which he put upon them, waited for a long time, and waited in vain, for a purchaser. At last he determined to commit them to public sale; but instead of the common method of auction, he devised a new and complex plan, with the intention of excluding picture-dealers, and obliging men of rank and wealth, who wished to purchase, to judge and bid for themselves. The scheme failed, as might have been expected. Nineteen of Hogarth's principal pictures produced only 427*l.* 7*s.*, not averaging 22*l.* 10*s.* each. The *Harlot's Progress* was purchased by Mr. Beckford, at the rate of fourteen guineas a picture; five of the series perished in the fire at Fonthill. The *Rake's Progress* averaged twenty-two guineas a picture; it has passed into the possession of Sir John Soane, at the advanced price of five hundred and seventy guineas. The same eminent architect became the proprietor of the four pictures of an Election, for the sum of 1782*l.* *Marriage à la Mode* was disposed of in a similar way in 1750; and on the day of sale one bidder appeared, who became master of the six pictures, together with their frames, for 115*l.* 10*s.* Mr. Angerstein purchased them, in 1797, for 1381*l.*, and they now form a striking feature in our National Gallery.

The satire of Hogarth was not often of a personal nature; but he knew his own power, and he sometimes exercised it. Two of his prints, 'The Times,' produced a memorable quarrel between himself on one side, and Wilkes and Churchill on the other. The satire of the prints of *The Times*, which were published in 1762, was directed, not against Wilkes himself, but his political friends, Pitt and Temple; nor is it so biting as to have required Wilkes, in defence of his party, to retaliate upon one with whom he had lived in familiar and friendly intercourse. He did so, however, in a number of the *North Briton*, containing not only abuse of the artist, but unjust and injurious mention of his wife. Hogarth was deeply wounded by this attack: he retorted by the well-known portrait of Wilkes with the cap of liberty, and he afterwards represented Churchill as a bear. The quarrel was unworthy the talents either of the painter or poet. It is the more to be regretted, because its effects, as he himself intimates, were injurious to Hogarth's declining health. The summer of 1764 he spent at Chiswick, and the free air and exercise worked a partial renovation of his strength. The amendment, however, was but temporary; and he died suddenly, October 26, the day after his return to his London residence in Leicester-square.

Hogarth has left a memoir of his own life, from which we have quoted, which contains some curious and in-

seresting and instructive matter concerning his own modes and motives of thought and action. He wrote verses occasionally in a rough and familiar style, but not without some sparkles of his humorous turn. But his most remarkable performance is the 'Analysis of Beauty,' composed with the view of fixing the principles of taste, and laying down unerring directions for the student of art. Its leading principle is, that the serpentine line is the foundation of all that is beautiful, whether in nature or art. The work unquestionably contains much that is original and valuable.

From the time when the young Hogarth began to jot down imaginary faces and other forms upon the margins of his school exercises,—to the further progress of his imitative talent when he proceeded to scratch upon silver tankards and copper plates,—and onward to the still further progress he made in correspondence with the masterly images formed in his mind by patient thought, he obtained real faces upon his thumb-nail;—in all these several processes of his education as an artist, through what intense reflection, not only upon human nature and human society, but upon the possibility of making the deepest things intelligible to the eye of the casual observer, must the great moral painter have passed, before he could produce such a picture as the one we now copy! Take it rough as we give it. It is printed from a leaden cast of a wooden block, copied from his own engraving upon copper. It is probable that his own print fell far short of his conceptions; and that their translation and re-translation into the language in which we must put them before a million of readers, may abate something of their force and fervency, as expounded by himself. But no defect in the mechanical process by which conceptions like Hogarth's are made apparent to all the world, can much detract from their originality and truth. The rudest copy must partake in a great degree of the nature of the original model. The Apollo is still an Apollo, though he is hawked about the streets in plaster for a shilling. Look at the wood-cut,—the best we are able to give,—or consult the original picture in the National Gallery. There is still in the few elements of which that scene is composed, an intensity of truth which "lectures on the vanity of pleasure as audibly as anything in the master's."

The series called 'The Marriage à-la-Mode' consists of six pictures. The personages of this satirical drama are taken from the upper walks of society. The son of a rich man seeks an alliance with the daughter of a wealthy London citizen. The father has a pedigree from William the Conqueror, but is otherwise embarrassed by improvident expenses. On the other there is humble birth, but great money. The parents settle this ill-assorted marriage;—those who are to be made happy or wretched, virtuous or vicious, for the rest of their lives, care little about the matter. The preliminary scenes are arranged;—the marriage has taken place;—the first solemn farce is over;—the comedy begins;—the scene before us.

There is no after-dinner arising out of the marriage happiness, which is perhaps comparable to the happiness of a wretched man and a wretched woman, who are bound together and set free in the same manner. They can have no pleasures in common. That purest of friendships—that almost only real friendship—which results from a correspondence of tastes and inclinations in two persons of different sexes allied 'for better or worse,' requires no excitements from without. From the moment when they cease to sympathize as to the sources of happiness, come weariness, and disgust, and hatred, and all the horrid train of ills that belong to domestic discord. The scene before us requires no development of the catastrophe to make us understand its present wretch-

edness. The lady has passed the night in her splendid mansion, amidst a crowd of visitors. She has snatched an hour or two of broken and feverish sleep, and has risen unrefreshed to a late breakfast. The servants have been unable to repair the disorder of the previous night. It is noon; but the candles are still burning; the furniture is disarranged; the floor is strewn with music, and books of games, and overcast with the emblems of midnight riot. It is in scenes like this that the sources of our purest enjoyments become corrupted. What is innocent relaxation to the pure in heart is converted into a minister to evil passions and corrupting idleness in those who have no elevating or useful employments, and who embitter life in the vain pursuit of pleasures that can only be won as the solace of honest exertion. The husband has spent his night from home—how vainly, how unwisely! The "jaded debauchee"—his dress disordered, his features pale and fallen, his whole attitude expressive of that withering anxiety which has drunk the dregs of what is called pleasure and found nothing but poison in the cup—tells a tale of the ruin which has overwhelmed thousands, and which will continue to overwhelm, till all classes of men, the richest as well as the poorest, learn to seek for happiness in the exercise and the cultivation of the higher qualities of their nature—till the restraints and the incentives of a truly moral and religious education shall have taken the place of the corrupting processes by which we are led away from the knowledge of what we are and what we ought to be. Truly might this unhappy man say, as the representative of a class, in the exquisite words of the poet,

"No more—no more—oh never more on me
The freshness of the heart can fall like dew,
Which out of all the lovely things we see
Extracts emotions beautiful and new,
Hived in our bosoms like the bag o' the bee."

DON JUAN, Canto I.

All the real happiness of this world for him has perished. Pleasure has been "weighed in the balance and found wanting;—deep degradation and misery are beginning to "cast their shadows before." Neither the devoted husband nor the careless wife can listen to the silent remonstrances of the old steward, who comes to them with a bundle of unpaid bills in his hand, and a file with only one receipt upon it. The uplifted hand and careworn face of the faithful servant distinctly point the ruin which he sees approaching in debt and dishonour. The catastrophe, indeed, is more sudden than he expects. In the four following pictures, we see that

"The Gods are just, and of our pleasant vices
Make instruments to scourge us"

The tragedy ends with adultery, and murder, and suicide. Hogarth put forth his strength in these pictures to exhibit this short cut to ruin which too often presents itself to the desperately vicious. In the 'Harlot's Progress' and the 'Rake's Progress,' he exhibits the longer and less certain road upon which crime and misery are destined to travel in company. Whether this great painter laid his scenes in high or in low life, his object was equally to show that Wadpole has well expressed it,—"the difference of the great and the vulgar is not by nature, but by the same unhappiness." He was, for a painter, an observer of human nature not to see that station only decides the form and colour of our evil doings. Crime is a leveller of all distinctions.

This truth was never more forcibly exemplified than in the print which we have chosen to present as a contrast to that which we have just described. 'The Cockpit' is a scene in which men of all ranks are represented as engaged in one brutalizing species of vice—amusement we will not call it. Here are a peer and a pickpocket, a French marquis and a chimney-sweep, a doctor and a horse-jockey, all busily engaged in the



[Marriage à-la-Mode.—The Saloon.]

cruel excitement of a cock-match. They are one and all equally ignorant, thoughtless, and depraved, whether they wear bag-wigs or smock-frocks, or exhibit their cupidity in stealing a bank-note, or offering a bet. It is possible that the progress of education may have driven those who call themselves gentlemen from such open exhibitions of profligacy; but the spirit that formerly carried them to the dirty cock-pit still allures them to the gorgeous saloon. The sepulchre is only whitened. But at the time when Hogarth painted, men of rank were to be constantly seen in such disgraceful society. The figure in the centre of the piece is a portrait of a nobleman of Hogarth's day, who, although he had the misfortune to be totally blind, had the greater misfortune to have his moral sense so dim as to place his chief gratification in excitements of this grovelling nature. On the left of the picture is an old man, a cripple with his crutch, deaf almost beyond the power of comprehension, for his features appear to give no signal of understanding the words of the man who is bawling to him through his ear-trumpet. Nothing can be finer or truer than the satire conveyed in the exhibition of these examples of human infirmity. Knowledge is shut out in these men from two of her chief inlets,—and yet they cultivate not that calm reflection which so peculiarly belongs to their condition, but cling to base excitements, in the spirit of which they are even precluded from completely participating. The group around the blind peer is arranged very skilfully; and the faces of the several characters all exhibit that deep meaning for which Hogarth is so remarkable. Five of the men about the unfortunate dupe are clamorous for him to bet with them. The vacant expression of his countenance, and the helplessness of his whole attitude, bewildered as he is by so many assailants, are expressed with surprising truth. At the moment of his embarrassment the fellow next the pit, on his left hand, is purloining a note. The cautious villainy expressed in this man's face is unrivalled. The post-boy, just above the thief, appears calling the blind man's attention to the pilfering that is going forward,—but he is utterly insensible to every thing but the rage for betting which has taken possession of him.

The group on the right of the picture is as well defined in its principal action as that of the centre. In his eagerness to see the match, a man has fallen forward against the edge of the pit. With the exception of the round-faced person, whom he has crushed, nobody is moved by the uproar. The peer in his star and spectacles is as much absorbed by the battle as if he had not a particle of dignity to be ruffled by all this shouldering and elbowing;—the despair of the man in the right corner, and the deep abstraction of the other gambler, next the gentleman who has lost his periwig, are finely marked. In the third group on the left, nothing can be more characteristic of such scenes than the eagerness of the countryman who stakes his crown,—the business-like gravity of the old fellow with a cock in a bag,—and the sedateness of his neighbour who is registering the wagers. The people in the lower tier are actively engaged in making bets or quarrelling. The two men reaching to join the butt ends of their white stumps, by this act, that they have closed a bet.

The most parts of the picture will be understood without any particular description. We cannot, however, omit to point out the extraordinary skill with which Hogarth in this, as in other of his performances, contrived to indicate some accessory of the scene by one of the minute touches which genius only can conceive. The shadow on the pit is that of a man. These scenes take place by lamp-light; and reflected from the lamp is the shadow of a gambler, who has been suspended from the ceiling in a basket, for the crime of not making good his stakes. Degraded as he is, the

passion clings to him even in his punishment: he is offering his watch as another stake.

The 'Cock-pit' is one of those pictures in which Hogarth exhibits vice in its more ludicrous attitudes—a thing to be despised as well as abhorred. As we advance in our plan, we shall have to point out his wonderful power of painting the more terrible features of crime—the deep tragedy of guilt, unrelieved by the lighter touches of the satirist. Yet even in these terrible displays of a fallen and degraded nature, there is always something which carries us back to the gentler feelings of humanity, and makes us still cling with pity to our species. Mr. Lamb has beautifully described this merit of the painter—which is indeed common to all great artists, whether they employ lines or words as the vehicles of their thoughts. Perpetual instances of this power occur in Shakespeare; and in Crabbe, who may be considered a painter of crime and suffering in the same walk and in the best spirit of Hogarth, there are constant examples of tenderness and natural affection coming to relieve the sense of disgust and loathing. Mr. Lamb says:—

"If an image of maternal love be required, where shall we find a sublimer view of it than in that aged woman in 'Industry and Idleness' (Plate I.), who is clinging with the fondness of hope not quite extinguished to her brutal, vice-hardened child, whom she is accompanying to the ship which is to bear him away from his native soil, of which he has been judged unworthy: in whose shocking face every trace of the human countenance seems obliterated, and a brute beast's to be left instead,—shocking and repulsive to all but her who watched over it in its cradle before it was so sadly altered, and feels it must belong to her while a pulse by the vindictive laws of his country shall be suffered to continue to beat in it? * * * With the exception of some of the plates of the 'Harlot's Progress,' which are harder in their character than any of the rest of his productions, (the 'Stages of Cruelty' I omit as mere worthless caricatures, foreign to his general habits—the offspring of his fancy in some wayward humour,) there is scarce one of his pieces where vice is most strongly satirized, in which some figure is not introduced upon which the moral eye may rest satisfied; a face that indicates goodness, or, perhaps, mere good-humouredness and carelessness of mind (negation of evil) only, yet enough to give a relaxation to the growing train of satire, and keep the general air from tainting."

It has been urged, however, that many of Hogarth's works were of a nature merely to entertain, "to shake the sides," and not to "attempt the heart," as was objected to him by Barry, the celebrated painter. This has been met so admirably by Mr. C. Lamb, that we cannot refrain from giving his triumphant refutation:—

"There remains a very numerous class of his performances, the object of which must be confessed to be principally comic. But in all of them will be found something to distinguish them from the droll productions of Bunbury and others. They have this difference, that we do not laugh at, but are led into long trains of reflection by them. In this respect they resemble the characters of Chaucer's 'Pilgrims,' which have strokes of humour in them enough to designate them for the most part as comic, but our strongest feeling still is wonder at the comprehensiveness of genius which could crowd, as poet and painter have done, into one small canvass so many diverse yet co-operating materials.

"The faces of Hogarth have not a mere momentary interest, as in caricatures, or those grotesque physiognomies which we sometimes catch a glance of in the streets, and, struck with their whimsicality, wish for a pencil and the power to sketch them down; and for-

get them again as rapidly, but they are permanent abiding ideas; not the sports of Nature, but her necessary eternal classes. We feel that we cannot part with any of them, lest a link should be broken.

"It is worthy of observation, that he has seldom drawn a mean or insignificant countenance. Hogarth's mind was eminently reflective; and, as it has been well observed of Shakspeare, that he has transfused his own poetical character into the persons of his drama (they are all more or less poets), Hogarth has impressed a *thinking character* upon the persons of his canvases. This remark must not be taken universally. The exquisite idiosyncrasy of the little gentleman in the bag and sword, beating his drum, in the print of the 'Enraged Musician,' would, of itself, rise up against so sweeping an assertion. But I think it will be found to be true of the generality of his countenances. The knife-grinder and Jew flute-player in the plate just mentioned, may serve as instances instead of a thousand. They have intense thinking faces, though the purpose to which they are subservient by no means required it; but, indeed, it seems as if it was painful to Hogarth to contemplate mere vacancy or insignificance.

"This reflection of the artist's own intellect from the faces of his characters, is one reason why the works of Hogarth, so much more than those of any other artist, are objects of meditation. Our intellectual natures love the mirror which gives them back their own likenesses. The mental eye will not bend long with delight on vacancy.

"Another line of eternal separation between Hogarth and the common painters of droll or burlesque subjects, with whom he is often confounded, is the sense of beauty which, in the most unpromising subjects, seems never wholly to have deserted him. * * * To this may be added the frequent introduction of children (which Hogarth seems to have taken a particular delight in) into his pieces. They have a singular effect in giving tranquillity and a portion of their own innocence to the subject. The baby riding in its mother's lap in the 'March to Finchley,' (its careless innocent face placed directly behind the intriguing time-furrowed countenance of the treason-plotting French priest,) perfectly sobers the whole of that tumultuous scene. The boy, moreover, winding up his top with such unpretending insensibility in the plate of the 'Harlot's Funeral' (the only thing in that assembly that is not a hypocrite) quiets and soothes the mind that has been disturbed at the sight of so much depraved man and woman kind. * * *

"In the 'Election Entertainment' (which perhaps as far exceeds the more known and celebrated 'March to Finchley' as the best comedy exceeds the best farce that ever was written) let a person look till he be saturated, and when he has done wondering at the inventiveness of genius which could bring so many characters—more than thirty distinct classes of face—into a room, and set them down at table together, or otherwise dispose them about in so natural a manner, engage them in so many easy sets and occupations, yet all partaking of the spirit of the occasion which brought them together, so that we feel that nothing but an election time could have assembled them; having no central figure or principal group,—for the hero of the piece, the candidate, is properly set aside in the levelling indistinction of the day,—one must look for him to find him,—nothing is to detain the eye from passing from part to part, where every part is alike instinct with life,—for here are no furniture-faces, no figures brought in to fill up the scene like stage-choruses, but all *dramatic personæ*: when he shall have done wondering at all these faces so strongly characterized, yet finished with the accuracy of the finest miniature; when he shall have done admiring the numberless appendages of the scene, those gratuitous doles which rich genius flings

into the heap when it has already done enough, the over measure which it delights in giving, as if it felt its stores were exhaustless; the dumb rhetoric of the scenery,—for tables and chairs, and joint stools in Hogarth are living and significant things; the witticisms that are expressed by words, (all artists but Hogarth have failed when they have endeavoured to combine two mediums of expression, and have introduced words into their pictures,) and the unwritten, numberless little allusive pleasantries that are scattered about; the work that is going on in the scene and beyond it, as is made visible to the 'eye of mind' by the mob which chokes up the door-way, and the sword that has forced an entrance before its master; when he shall have sufficiently admired this wealth of genius, let him fairly say what is the result left on his mind? Is it an impression of the vileness and worthlessness of his species? or is not the general feeling which remains, after the individual faces have ceased to act sensibly on the mind, a *kindly one in favour of his species*? Was not the general air of the scene wholesome? did it do the heart hurt to be among it? Something of a riotous spirit to be sure is there, some worldly-mindedness in some of the faces, a Doddingtonian smoothness which does not promise any superfluous degree of sincerity in the fine gentleman who has been the occasion of calling so much good company together; but is not the general cast of expression in the faces of the good sort? do they not seem cut out of the good old rock—substantial English honesty? would one fear treachery among characters of their expression? or shall we call their honest mirth and seldom-returning relaxation by the hard names of vice and profligacy? That poor country fellow that is grasping his staff, (which, from the difficulty of feeling themselves at home which poor men experience at a feast, he has never parted with since he came into the room,) and is enjoying, with a relish that seems to fit all the capacities of his soul, the slender joke which that facetious wag his neighbour is practising upon the gouty gentleman, whose eyes the effort to suppress pain has made as round as rings,—does it shock the 'dignity of human nature' to look at that man, and to sympathize with him in the seldom-heard joke which has unbent his care-worn, hard-working visage, and drawn iron smiles from it? or that full-hearted cobbler, who is honouring with the grasp of an honest fist the unused palm of that annoyed patrician whom the licence of the time has seated next him?

"I can see nothing 'dangerous' in the contemplation of such scenes as this, or the 'Enraged Musician,' or the 'Southwark Fair,' or twenty other pleasant prints which come crowding in upon my recollection, in which the restless activities, the diversified hints and humours, the blameless peculiarities of men, as they deserve to be called, rather than their *vices and follies*, are held up in a laughable point of view. All laughter is not of a dangerous or soul-hardening tendency. There is the petrifying sneer of a demon, which excludes and kills love, and there is the cordial laughter of a man which implies and cherishes it. What heart was ever made the worse by joining in a hearty laugh at the simplicities of Sir Hugh Downs or Parson Adams, where a sense of the ridiculous actually kindles and is kindled by a perception of the sublime? That tumultuous harmony of singers who are roaring out the words 'The world shall bow to the Assyrian throne,' from the opera of 'Judith,' in the third plate of the series, called 'Four Groups of Heads,' which the quick eye of Hogarth must have struck off in the very infancy of the rage for sacred oratorios in this country, while 'Music yet was young;' when we have done smiling at the deafening distortions which these tearers of devotion to rags and tatters, these takers of heaven by storm, in their boisterous mimicry of the occupation of angels,

are making—what unkindly impression is left behind, or what more of harsh or contemptuous feeling, than when we quietly leave Uncle Toby and Mr. Shandy riding their hobby-horses about the room? The conceited long-backed sign-painter, that with all the self-applause of a Raphael or Corregio (the twist of body which his conceit has thrown him into has something of the Corregiesque in it) is contemplating the picture of a bottle which he is drawing from an actual bottle that hangs beside him, in the print of 'Beer Street,' while we smile at the enormity of the self-delusion, can we help loving the good-humour and self-complacency of the fellow? would we willingly wake him from his dream?

"I say not that all the ridiculous subjects of Hogarth have necessarily something in them to make us

like them: some are indifferent to us; some in their natures repulsive, and only made interesting by the wonderful skill and truth to nature in the painter; but I contend that there is, in most of them, that sprinkling of the better nature which, like holy water, chases away and disperses the contagion of the bad. They have this in them besides, that they bring us acquainted with the every-day human face;—they give us skill to detect those gradations of sense and virtue which escape the careless or fastidious observer in the countenances of the world about us, and prevent that disgust at common life, that *tedium quotidianarum formarum* which an unrestricted passion for ideal forms and beauties is in danger of producing. In this, as in many other things, they are analogous to the best novels of Smollett or Fielding."



[The Cock-pit.]

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ST. PATRICK'S CATHEDRAL, DUBLIN.



THE metropolis of Ireland is celebrated for the beauty of its public buildings; and the Bank, the College, the Four Courts, the Custom-House, the Stamp-Office, the Post-Office, the Royal Exchange, the new Catholic church of St. Mary's, and other edifices, well sustain its claim to be accounted one of the finest cities in the United Kingdom. The architectural ornaments, however, of which it has most reason to be proud are almost all modern. Of ancient Gothic magnificence, of which England has so much to show, there are few remains either here or anywhere else in Ireland. St. Patrick's Cathedral is, we believe, the most remarkable structure in the Gothic style now to be found in the country.

Dublin possesses two cathedrals, of which that dedicated to the Holy Trinity, and commonly called Christ's Church, enjoys the priority in point of dignity. It is a very old building, and is now in a state of extreme decay. Both the Cathedral of Christ's Church and that of St. Patrick stand on the south side of the river Liffey, in the south-west quarter of the city, which is the most ancient part of it. Christ's Church is nearest the river, and St. Patrick's stands directly south from it. The situation of the latter is very low, and it is not a great many years since not only the floor of the cathedral, which is sunk six or seven feet below the surrounding streets, used occasionally to be inundated, but even outside the walls the water sometimes stood so high that boats actually plied on it. Draining and other improvements have now, however, put an end to these inconvenient visitations.

The site appears to have owed its first reputation for sanctity to a well, long known by the name of the patron saint of Ireland. A church dedicated to St. Patrick is said to have been built on the site which the cathedral now occupies, so early as the middle of the fifth century;—but there probably was little church building in Ireland till some centuries after this date. There is no reason to doubt, however, that there was a church here when Archbishop John Comyn conceived the plan of erecting the present more extensive building about the close of the twelfth century. The new church of St. Patrick was at first only a collegiate church; it was not till the episcopacy of Henry de Loundres (that is, of London), who was consecrated archbishop in 1213, that it was made a cathedral, and “united,” says John Alan, who was archbishop in the time of Henry VIII., “with the Cathedral of the Holy Trinity, saving to the other church the prerogative of honour*.”

This, however, was, properly speaking, only the predecessor of the present building. On the 6th of April, 1362, the church which had been erected by Archbishop Comyn was burned to the ground, the blame of which is thrown upon the negligence of John the sexton. In 1364 the restoration of the edifice was begun by Thomas Minot, the then archbishop; and the work was probably completed before the end of the fourteenth century. Minot is known to have laid, in the year 1370, the foundation of the present tower, which rises over the intersection of the nave and transept, and to have lived to finish it according to the original design. The spire by which it is ornamented was only added about the middle of the last century. Archbishop Minot commemorated his pious work by assuming on his seal the somewhat strange device of a bishop holding in his hand a church steeple.

Both time and the hand of man had grievously defaced the original features of St. Patrick's Cathedral, and the building appeared to be hastening to ruin, when, fourteen or fifteen years ago, principally through the exertions of the late Dr. Keating, the dean, the funds were obtained for a thorough reparation of it, which has since been executed. It has now been put into such a

state that it may last for some ages. Not only the cathedral itself has been renovated externally and in the interior, and the parts of it which were partially or wholly in ruins restored, but many surrounding old buildings, by which it used to be incumbered and disfigured, have been cleared away.

According to the measurements given in Warburton and Walsh's ‘History of Dublin,’ this cathedral is 300 feet long and 80 feet in breadth. The transept is 157 feet from north to south; but neither of the two portions which extend beyond the nave forms a part of the cathedral, that to the south being the Chapter House, and that to the north the parish church of St. Nicholas. The latter was in ruins before the recent reparation. For the purpose of enlarging the choir, also, which appears to have been originally only 60 feet long, the central portion of the transept has been taken in from the nave, making the length of the choir now 90 feet. To the east of the choir is the Chapel of the Virgin, the length of which is 55 feet. The nave is stated, by the authority referred to above, to be 130 feet in length; but these numbers leave part of the 300 feet given as the entire length of the church unaccounted for. The account, also, of the width of the several divisions of the nave does not seem to correspond with the statement of its entire width already quoted. The central portion is said to be 30 feet, and each of the two side aisles 14 feet wide. The aisles are separated from the centre by rows of octagonal pillars, each of which is 5 feet in diameter, and 10 feet high. The height of the tower and spire together is 223 feet; of which 120 feet is the height from the ground to the base of the spire.

The interior of the cathedral has not much architectural beauty to boast of; but the wooden roof of the nave, which is lofty, presents a somewhat fanciful design, and the arch, spanning the original entrance to the choir, has been much admired. The roof of the choir, also, is handsome. It was originally of stone, but an imitation in stucco has been substituted, the weight of the stone having been thought too great for the strength of the walls. With these exceptions, the chief ornaments of the church consist of monuments and other accessories. The choir presents a striking appearance, ornamented as it is with the banners of the Knights of St. Patrick, which are suspended over the stalls appropriated to the several members of the order. The installation of the knights takes place in this cathedral; and the banners, helmets, and swords of the deceased knights are preserved in the Chapter House. In the Chapter House is also to be seen the skull of the great Duke of Schomberg, who was killed at the battle of the Boyne, by a shot, as is generally supposed, accidentally fired from his own side. In many of the accounts of the battle it is stated that the ball passed through his neck; but it appears to have entered the head above the right eye. Among the monuments in the choir, by far the most conspicuous is that erected in 1631 in honour of Richard, the first Earl of Cork, and his countess, upon which are sculptured these noble persons, and no less than fourteen other individuals of their family. The display is a very gaudy one, decorations in wood, painted and gilt, being intermixed with the stone. This singular testimonial, erected while the earl was yet alive, is said to have been placed originally behind the communion-table, from which situation it was removed to the south side of the choir, where it now stands, by order of the Earl of Strafford, an exertion of authority which the Earl of Cork avenged by a course of determined hostility to the government of Strafford, and finally by presenting himself as one of the witnesses against that unfortunate nobleman on the trial which ended in his destruction. But the most interesting monumental record in St. Patrick's Cathe-

* See ‘History of Dublin,’ by Warburton, Whitelaw, and Walsh, 2 vols., 4to., 1818.

dral is a marble slab affixed to one of the pillars in the nave of the church over the remains of Swift, its illustrious dean. He held this dignity from 1713 till his death, on the 19th of October, 1745. The short Latin inscription, written by himself, contains a keen expression of what he probably intended to be taken for a lofty scorn of human folly and vice, but which was really in great part merely a misanthropic impatience generated by disappointed ambition: Here, it is said, rests his body, "ubi sæva indignatio ulterius cor lacerare nequit,"—where bitter indignation can tear his heart no more. His bust, which is said to be a good likeness, is placed over the tablet. On the next pillar hangs a similar plain memorial of the unfortunate Mrs. Hester Johnson, better known as Stella. She is described as having been "a person of extraordinary endowments and accomplishments of body, mind, and behaviour, justly admired and respected by all who knew her, on account of her many eminent virtues, as well as for her great natural and acquired perfections." Mrs. Johnson died in her forty-sixth year, on the 27th of January, 1728; but this inscription was not placed over her grave till some time after the death of Swift. Another tablet, in one of the corners of the nave, is also interesting from its connexion with this celebrated writer. It is one placed by him over the remains of a favourite servant—Alexander M'Gee, who is stated to have died on the 24th of March, 1722, in the twenty-ninth year of his age.

As in several other of the Dublin churches,—the College Chapel, the Castle Chapel, and the Cathedral of Christ's Church,—the musical part of the church service is performed in this cathedral in a style of extraordinary magnificence. The organ is one of the finest in this country, and was the gift of the second Duke of Ormond, the ship which was conveying it from Rotterdam, where it had been built by the elder Smith, having fallen into the hands of his Grace, in 1702, after an attack on Vigo in Spain, for one of the churches in which city it was intended.

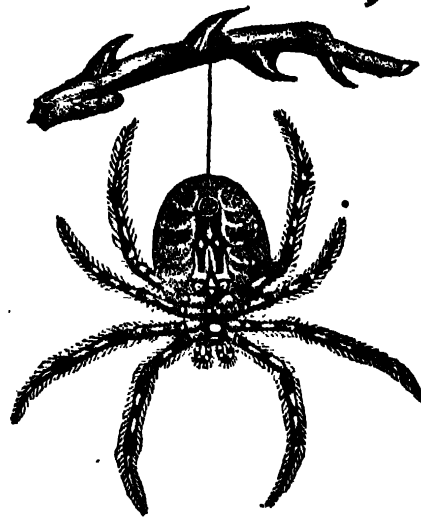
SPIDERS.

THE unamiable character of this insect, its unsightly appearance, and the zeal with which good housewives wage war against it, concur in preventing that general acquaintance with its habits, which its frequent occurrence and domestic and sedentary mode of life render of such easy attainment. The following account, though it adds nothing to the stock of existing information on the subject, affords details which to some of our readers will be new and interesting.

The characteristics of the whole class (*Aranea*), of which the species are many, may be thus stated. All spiders differ essentially in their internal structure from insects proper, and their external form is very peculiar. The feet are always eight in number, instead of six, as in insects, terminated by a moveable hook; the eyes are eight, or, though very rarely, six. The eight eyes of spiders are immovable, and of a structure different from those of insects. As each consists of only one lens, it is deprived of the power of multiplying objects, and, from its immobility, it can only perceive those which are placed immediately before it. The distribution of the eyes differs greatly in different species; but they are always disposed in such a manner as, with their number, to meet the deficiencies indicated, affording a beautiful instance of those "compensations" to which the attention of the student of nature is continually drawn. Spiders do not undergo metamorphoses; and all envelope their eggs in cocoons of silk, varying in form and texture in the different species.

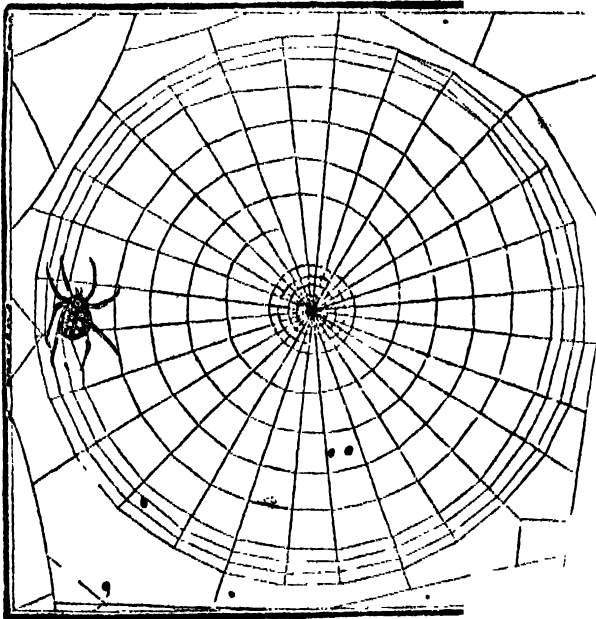
The process by which the web of the spider is woven is always open to observation. There are five spin-

nerets or teats near the extremity of the abdomen, the apertures of which the insect can contract or enlarge at will. These apertures communicate by a tube with four reservoirs containing the gluey substance of which the thread is spun.



[Garden Spider (*Epeira Diadema*), suspended by a thread proceeding from its spinneret.]

When the common house-spider purposes to form a web, she generally chooses a place where there is a cavity, such as the corner of a room, as well to facilitate her escape in time of danger as for the advantage afforded of more complete inclosure. Having chosen a situation, she fixes one end of her thread to the wall, by applying her spinneret, and then passes to the other side, the thread following her as she recedes. After fixing the other end of the thread to the opposite wall, she returns, and thus passes to and fro until as many parallel threads have been made as she considers necessary, when she begins to cross them by other parallel threads. Thus are formed the toils or snares designed to entangle flies and other small insects. But, besides this large web, she generally weaves a small cell for herself, where she lies quiet and concealed waiting for her prey. This cell is sometimes in the centre of the web, but when not so, a connexion is established by means of threads, which not only inform her, by the agitation communicated to the cell, when anything touches the web, but enables her to pass quickly in order to secure the captive struggling in her toils.

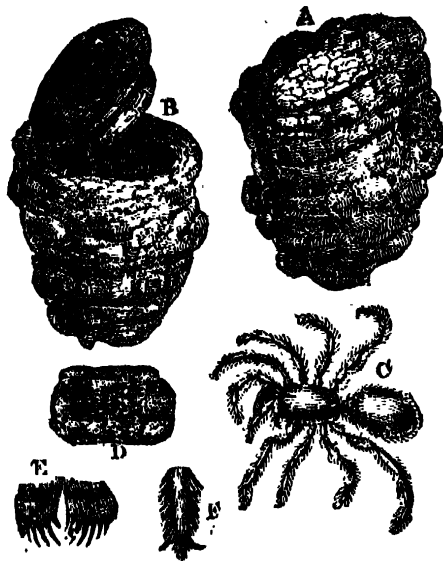


[Geometric Net of *Epeira diadema*.]

There are other methods of weaving peculiar to different species of spiders, but which our limits will not allow us to enumerate. The second cut in p. 131, exhibits the geometric net of the garden-spider.

Several species of spiders construct a cylindrical web under the ground, with a lid connected by a sort of hinge, which the inhabitant of the cell can open and shut at pleasure. In the volume of 'Insect Architecture' will be found some very curious details of these contrivances of mason-spiders*. The following offers an example of these wonderful exertions of instinct:—

"Another mason-spider (*Mygale cæmentaria*, LATR.), found in the south of France, usually selects for her nest a place bare of grass, sloping in such a manner as to carry off the water, and of a firm soil, without rocks or small stones. She digs a gallery a foot or two in



[Nest of the Mason-Spider.]

A. The nest shut. B. The nest open. C. The spider, *mygale cæmentaria*. D. The eyes magnified. E, F. Parts of the foot and claw magnified.

depth, and of a diameter (equal throughout) sufficient to admit of her easily passing. She lines this with a tapestry of silk, glued to the walls. The door, which is circular, is constructed of many layers of earth kneaded, and bound together with silk. Externally it is flat and rough, corresponding to the earth around the entrance, for the purpose, no doubt, of concealment: on the inside it is convex, and tapestried thickly with a web of fine silk. The threads of this door-tapestry are prolonged, and strongly attached to the upper side of the entrance, forming an excellent hinge, which, when pushed open by the spider, shuts again by its own weight, without the aid of spring hinges. When the spider is at home, and her door forcibly opened by an intruder, she pulls it strongly inwards, and even when half-opened often snatches it out of the hand; but when she is foiled in this, she retreats to the bottom of her den as her last resource."

Some spiders are aquatic, and spin a cup-like web, which answers the purpose of a diving-bell, under which they disengage the air they bring down from the surface, and pass their lives feeding on aquatic insects. Some spin no web, but take their prey by running; others, by approaching quietly till within a certain distance, when they suddenly spring upon their prey.

The means which spiders employ in transporting themselves from one place to another are not a little curious. When the insect is inclined to change its situation, it hangs itself perpendicularly by a thread, and, turning its head towards the wind, shoots out others from behind, which are wafted about by the air,

until they fasten on trees, walls, and other bodies. When the spider finds that the threads have attached themselves, which it ascertains by pulling them in with its feet, it uses them as a bridge to pass to the place where they are fixed. Such threads are frequently seen running, parallel to the horizon, from one wall to another in a house, from one tree to another in a field, and even from wall to wall across gardens of considerable extent. That spiders had the means of floating through the air appears to have been first ascertained by Dr. Lister and Dr. Hulse towards the latter end of the seventeenth century. After the insect has, in the manner just described, thrown out one or more threads to the length of several fathoms, it snaps that from which it hangs, and then floats away with the wind; and although, of course, it cannot proceed against the wind, it seems to have some control over its own course, using its feet in the way of oars to steer, and perhaps, in some measure, to row. Many theories have been attempted for the explanation of this phenomenon; amongst others that it depends upon the electrical state of the atmosphere.

The height to which they can attain is very surprising. In a letter to Mr. Ray, Dr. Lister mentions that, in October, 1670, he observed the air to be very full of these webs, and immediately ascended to the top of the highest steeple of York Minster, and could there observe them still very high above him. Autumn is the principal season for these aerial voyages, though they are occasionally undertaken at other times in clear and calm weather. As these floating webs are, like those in the lower regions, frequently garnished with legs, wigs, and other marks of slaughter, it is concluded that the spiders capture gnats and other insects in their passage. In all stages of their existence, spiders prey with the most savage ferocity on all insects they can overcome, and also upon one another. Spiders seize and kill their prey with a pair of sharp, crooked claws, or forceps, placed in the fore part of the head. They can open or extend these pincers as occasions require; and, when undisturbed, they suffer them to lie one upon another. It is affirmed that the spider injects a poisonous juice into the wound it makes. They cast their skins once a-year, and they perform this operation by suspending themselves in some corner, and creeping out of their case. These skins are found in the webs dry and transparent, with the legs attached to them.

It should be observed that the apertures in the spinnerets of the spider, from which the viscid matter which forms the web is emitted, are exceedingly numerous. M. Réaumur often counted 70 or 80 in a single teat by means of a microscope, and could perceive that there were infinitely more than he could enumerate. It is computed that there are about 1000 apertures in each teat, and, as there are five teats, each thread of the spider consists of 5000 separate fibres, which are united at a very minute distance from the teats.



[Spinnerets of a Spider magnified to show the Spinnerules.]

To give an idea of the wonderful tenuity of the

* See page 360, &c.

thread of the full-grown insect, it has been computed that an ordinary human hair is as large as 10,000. But this is not—

"The spider's most attenuated thread;"

for the young begin to spin as soon as they leave the egg; and how fine must the thread be which is drawn from the minute apertures in the teats of insects whose whole bulk does not equal that of a single teat of the mother! Leeuwenhoek calculates that, when the young spiders first begin to spin, 400 of them are not larger than one of full growth; we may therefore presume, on the data of the preceding computation, that 4,000,000 of such threads do not exceed in bulk a single human hair.

About the beginning of the last century, M. Bon, of Languedoc, having observed that a short-legged species of garden-spider enclosed its eggs in bags composed of threads of much thicker and stronger texture than those which form the web, was led to think that they might be manufactured into a kind of silk. On making the experiment, he found that the threads could not be wound off, and he therefore had them carded with unusually fine cards. A silky substance of an ash colour was thus obtained that was easily spun into fine and strong threads, which M. Bon caused to be manufactured into gloves and hose, and found that three ounces of this material would make a pair of stockings for a large man whose common silk stockings weighed between seven and eight ounces. The result of M. Bon's experiment, and the actual production of the manufactured articles before the Royal Academy of Sciences, led to very sanguine expectations of the benefit which might be derived from these insects. But M. Réaumur, who was appointed by the Academy to investigate the subject, made a report which completely discouraged the expectations which had been raised. He stated that the natural ferocity of the spiders renders it impracticable to breed and keep them together. He distributed 4000 or 5000 into different cells, in numbers varying in each cell from 50 to 200, and fed them with flies and the bloody ends of young feathers; but the smaller insects were soon devoured by the larger, so that in a short time there were but one or two left in each cell. To this disposition in spiders of devouring one another, M. Réaumur attributes their comparative scarcity, considering the vast number of eggs they lay. It is thus impossible to establish the insects in a community; and, if it were practicable, more room and attention would be required than the produce would recompense. A much greater number of spiders than of silkworms would be necessary to produce the same quantity of silk; and the bag of the spider is, after all, much inferior to that of the silkworm both in lustre and strength. M. Réaumur computed that 2304 worms will produce a pound of silk; and, as he considers the work of twelve spiders only equal to that of one silkworm, a pound of silk would require 27,648 spiders; and as the females only form the bags to deposit their eggs in, he supposes it would be necessary to have an equal number of males, so that, in order to obtain a quantity of silk equal to that furnished by 2304 silkworms, it would be requisite to keep 55,296 spiders.

THE BEDFORD LEVEL.

THE Bedford Level is a vast tract, containing about 400,000 acres of low land, extending into the six counties of Northamptonshire, Huntingdonshire, Cambridgeshire, Lincolnshire, Norfolk, and Suffolk, bounded on all sides by high lands, which encompass it almost in the form of a horse-shoe. Peterborough Fen*,

* Fen, in the old English or Saxon language, signifies dirt or mud.

which is that part of the Level turning into Northamptonshire, and extending between Peterborough and Crowland, contains between 6000 and 7000 acres. One-seventh part of the Level is situated in Huntingdonshire. Nearly the whole of the Isle of Ely, which forms the northern division of Cambridgeshire, consists of this marshy ground. The south-east part of Lincolnshire,—usually termed Holland,—extending to the river Witham on the north, is a fenny district included in the Bedford Level: 63,000 acres are situated in Norfolk and 30,000 in Suffolk.

There is abundant evidence to prove that this part of the country was formerly dry land, at a much lower level than the present surface. From the convulsions of nature, and subsequently owing to embankments improperly made, which prevented the waters from the uplands flowing into channels through which they might discharge themselves into the sea, the tract was at length reduced to the state of a morass, where the waters, stagnating and becoming putrid, produced miasma destructive to the health of the inhabitants; while this extensive district became impassable even to boats, in consequence of the sedge, reed, and slime with which it was covered. It is conjectured, with every appearance of probability, that this Level was, at the time of the invasion of the Romans, one of those great forests to which the Britons fled for protection against their conquerors, whose policy it was to cut down the trees, and to render bare those retreats and strongholds of the natives.

History records the heavy grievances of the Britons, who complained that their hands and bodies were worn out and consumed by the Romans, in clearing the woods and embanking the fens. The Roman emperor, Severus, who died in the beginning of the third century of the Christian era, was the first who intersected these fens with causeways. One of these was twenty-four miles long, extending from Denver, in Norfolk, to Peterborough. It was sixty feet broad, composed of gravel three feet in depth. This causeway is now covered with moor, from three to five feet in thickness. At that early period this low land, though damp, was by no means impassable; on the contrary, it appears that, up to the thirteenth century, the waters here usually flowed in natural channels, and had not devastated the surrounding country. Henry of Huntingdon, who wrote in the time of King Stephen, describes this fenny country as "very pleasant and agreeable to the eye,—watered by many rivers which run through it,—diversified with many large and small lakes,—and adorned with many woods and islands." William of Malmesbury, who lived about the same period, also represents it as a perfect paradise, "the very marshes abounding in trees whose length, without knots, do emulate the stars." There was then no waste land in any part. On some spots there were apple-trees; in others, vines, which either spread upon the ground or ran along poles.

Dugdale relates, on the authority of historians writing at the time in which the event happened, that in the year 1236, on the morrow after Martinmas Day, and for the space of eight days more, the winds were so boisterous that the sea was raised much higher than its usual bounds, and broke in at Wisbeach and other places of this district, so that many people and cattle, together with numerous small craft, were destroyed; and those of the inhabitants who survived were reduced to great distress. About seventeen years after this disaster, a similar accident again happened; and the inhabitants were called upon, by command of the king, to repair the banks. This compulsory work was performed but very inefficiently, for, within a few years, the sea-banks were again broken by the violence of the tides.

In the progress of draining the district, evidence has every where been found not only of previous vegetation, but that this spot had formerly been an inhabited country, which must have been suddenly overwhelmed by some violent convulsion of nature. In digging a little above Boston, in the year 1764, for the purpose of driving piles in the solid bottom, roots of trees were found at the depth of eighteen feet below the then pasturage surface, and these roots were so firm in the ground that some of them were obliged to be chopped to make room for piles. In making several channels for draining the isle of Axholm* great numbers of oak, fir, and other trees, were found lying in the moors, the fir from four to five feet deep, the oak about three feet below the surface. They were discovered lying near their roots, which still stood as they grew in firm earth below the moor. The bodies had fallen generally in a north-west direction from the roots. Their appearance indicated that they had not been dis severed by the stroke of the axe but had been burnt asunder near the ground, the ends still presenting a charred surface. The oaks were lying in multitudes, and of an extraordinary size, some being five yards in circumference and sixteen yards long; others smaller, but of a great length, with a large quantity of acorns near them. Similar discoveries were made near Thorney, near Lynn, and in many other places.

When Sir R. Cotton was having a pool made at the edge of Conington Downs, Huntingdonshire, in the course of excavation the skeleton of a large sea fish was found considerably beneath the surface of the soil. In 1635 a deeper channel was made to the Wisbeach river, and eight feet below the then bottom, another hard stony bottom was found, on which were lying seven boats covered with silt. On digging through the moor at Whittlesey, in the Isle of Ely, for the purpose of making a moat, at the depth of eight feet a perfect soil was found, with swaths of grass lying on it as they were first mowed. At Shirbeck sluice near Boston, a smith's forge was discovered buried sixteen feet deep; the remains of several ancient tan-vats were likewise found, besides a great quantity of horns, and some shoe soles of a very unusual form, being sharp-pointed, in the fashion of those worn in the reign of Richard II.

In 1436, the project of draining these fens engaged the attention of many persons of wealth and consideration in the country. Vast funds were expended in making ditches and banks impregnable, as it was supposed, to all assaults from inundations; but the next winter being wet and windy, the river Ouse, with the accession of its tributary brooks, swelled into a mighty torrent, and swept away all the bulwarks opposed to its progress. This accident is thus described in the quaint words of the narrator:—"Down comes the bailiff of Bedford, attended like a person of quality with many servants, and breaks down all their paper banks, as not water-proof, reducing all to their former condition." The total demolition of works, which were thought so excellent in design and execution, induced the speculators of that and succeeding ages to discuss the feasibility of the project, and many curious arguments were brought forward for and against the undertaking; an account of some of these may not, perhaps, be uninteresting.

Some narrow-minded persons objected to the attempt on the plea of religion, as if it were displeasing in the sight of the Creator for his creatures to exercise the patience and ingenuity with which they have been endowed by Him. It was said, "Hitherto shalt thou come, and no farther," and it was therefore mistrusting God's providence for man to presume to set any other bounds

* The Isle of Axholm is on the north-west of Lincolnshire, and is included by the rivers Trent, Idle, and Dun.

to the water than those which "God hath appointed." On the other hand it was urged, that this objection only held good with regard to the ocean, "which is a wild horse, only to be broke, backed, and bridled by Him who is the maker thereof. It was a false and lazy principle if applied to fresh water, from the attacks of which, to defend the soil, human industry might be exerted with perfect propriety."

Another argument of the non-speculators was, that many had attempted, but none succeeded, in arresting this mighty assailant. "None even wrestled with it but it gave them a foil (if not a fall) to the bruising (if not breaking) of their backs. Many have burnt their fingers in these waters, and instead of draining the fens have drained their pockets." To this it was answered, that the frequent failures in the undertaking did not prove its impracticability, but only the want of ability in design and execution.

A worthy alderman of Cambridge likened the fens to a crust of bread swimming in a dish of water, as, under a depth of eight or ten feet of earth, the whole was nothing, he said, but mere water. The draining thereof was therefore impossible. It was affirmed by his opponents that interest had betrayed his judgment into an evident error, and that his brain, rather than this floating earth, seemed to swim. The savans of Cambridge then urged that the Cam would have its stream dried up by the draining of the fens; and as Cambridge is concerned in its river, so the well-being of the whole country, yea, of the whole kingdom, is concerned in Cambridge and its University, and the stream of knowledge would be dried up with the stream of Cam. It was, therefore, not reasonable that private men's particular profit should be preferred before a universal good,—or the good of a university. Assurances were given that no damage should accrue to the river Cam; on the contrary, "to take away the thief is not wasting nor weakening the wick of the candle."

Those who professed to be the poor man's friends brought forward other objections. They said, that the fens were nurseries and seminaries of fish and fowl which would be destroyed by the draining; that the sedge, turf, and reed would likewise be destroyed, and that many thousand people then gained their livelihood by fishing and fowling in the fens, while the turf furnished fuel for the poor. The answers to these objections were forcibly though quaintly put. It was said, that a large first course, at any man's table, compensates for his shorter second course; and who would not prefer a tame sheep before a wild duck, and a good fat ox before a well-grown cel; while the people employed might turn their industry to a more profitable account. The sedge, &c., would be replaced by good grass and grain. He cannot complain of wrong who hath a suit of buckram taken from him and one of velvet given instead thereof.

A parallel to this objection is stated by Sir John Herschel to exist at the present day in Holland. The great Haarlem Lake, which covers a surface of 40,000 acres, might easily be drained, and Sir John has made a calculation* to show the practicability of the undertaking through the employment of pumps worked by means of steam-engines. "Eight or nine thousand chaldrons of coals," says he, "duly burnt, would evacuate the whole contents. But many doubt whether it would be profitable, and some, considering that a few hundred fishermen, who gain a livelihood on its waters, would be dispossessed, deny that it would be desirable."

It was then asserted, that even if these marshes could be drained, after vast difficulty and expense, they would quickly revert to their old condition, like the Pontine marshes in Italy: the speculators, on the other hand,

* Discourse on the Study of Natural Philosophy, pp. 61, 62.

urged that moderate care would prevent this catastrophe. Well, said the objectors, grant them drained, where would be the advantage? the rich man would jostle out the poor from their commons. Wherefore, it was answered, was this a necessary result? why should oppression be an essential accompaniment to draining or enclosing? an equitable allotment would be made which would benefit the poor as well as the rich.

•All these arguments fully impressed the generality of people with the opinion that the project was impossible, and that it was only an idle dream of fanciful speculators. Perseverance and experience, joined to skill and ingenuity, have, however, brought to a successful issue many schemes which have been deemed impossible; and much rich and productive land, by these united powers, have, in this instance, been brought into successful cultivation. Where the wild-fowl and the fish once held undisputed sway, now graze in luxuriant pasturage the ox and the sheep; where the reed lifted its profitless head, now waves the golden harvest; the industry of man has reclaimed a great part, and is still constantly reclaiming more, of this once unhealthy and unprofitable morass. It would much exceed our present limits to give a detailed account of the various means taken to accomplish this arduous work. In the reign of Charles I., in the year 1634, William Earl of Bedford* undertook to drain these fens, stipulating to receive, as a compensation for the expense and trouble incurred, 95,000 acres of the reclaimed land: 100,000*l.* were expended in the course of three years in this endeavour, and the work was partially accomplished; but the embankments proved defective, and the whole was again allowed to lay waste until the year 1649, when the Earl once more attempted the task for his former share of 95,000 acres. Three hundred thousand pounds were then laid out in draining, embanking, &c., and this time with success, as far as regarded the accomplishment of the work, but to the ruin of those who had been admitted sharers, since the sum expended was much more than the 95,000 acres were worth.

A regular system for continuing the draining and preserving the land already reclaimed, was now established; and, in 1664, a company was incorporated for its management: this consisted of one governor, six bailiffs, and twenty conservators; and, to the present day, the fens are managed and preserved by this corporation. Numerous cuts have been made, intersecting every part; some of these are so large and deep as to serve for navigable canals. In the Isle of Ely, the Old and New Bedford rivers are two cuts running nearly parallel to each other;—these are both navigable for upwards of twenty miles from Ely to Denver. Various expedients are used for the proper draining of the marshes: where the regular and common means have failed, windmills have been erected which raise the water to the requisite height to admit of its being conveyed to receptacles sufficiently elevated, by which it may be carried off into its proper channel. These numerous windmills give a strange aspect to the Isle of Ely, where the towns and villages are built on the most elevated spots, which appear like islands rising from amidst low and wet marshes. Recourse has been had to numerous projects to complete and secure the drainage of the fens; and a vast expense has been incurred, sometimes much greater than the value of the land reclaimed. In Huntingdonshire, about the latter end of the last century, the tax raised on the land by the conservators, for its drainage and the preserving of its embankments, was in some instances so great, that the farmers preferred forfeiting their land rather than paying so exorbitantly for its preservation. In the present day, the art of drainage

is better understood than when first this stupendous work was undertaken; but even now, in many places, the farmer is still liable to have the produce of his grounds carried away by sudden inundations. The peculiar situation of the Level renders it the receiver of the waters of nine counties, and therefore, it is difficult to provide a sufficient outlet to the sea by which the descending torrent may find a safe egress. The great error committed in the commencement of the drainage was the making numerous small cuts instead of larger and deeper channels, by which, with the same inclination of descent, the water would safely pour into the sea without any risk of overflowing its banks; since in a narrow and shallow channel, owing to the smaller force exercised by the lesser body of water, the bottom must be made at a much greater inclination to cause the free flowing of the stream. Great improvements are now, however, constantly being made in the drainage and embankment of this extensive tract of land, and the errors of former methods are, as far as possible, being remedied.

The late Mr. Nimmo, in an excellent paper on draining inserted in 'Brewster's Edinburgh Encyclopedia,' gives the following data on the subject of the relative inclination of streams necessary to insure the discharge of their waters:—

"Large and deep rivers run sufficiently swift with a fall of about one foot per mile, or 1 in 5000
Smaller rivers and brooks run sufficiently swift with a fall of about two feet per mile, or 1 in 2500
Small brooks hardly keep an open course under four feet per mile, or 1 in 1200
Ditches and covered drains require at least eight feet per mile, or 1 in 600
Burrows of ridges and filled drains require much more."

SCRATCHELL'S BAY, ISLE OF WIGHT.

The old topographical poet, Michael Drayton, says justly of the Isle of Wight, in his many-footed verses,—

"Of all the southern isles she holds the highest place,
And evermore hath been the great'st in Britain's grace."

He might, indeed, have made his eulogy more unqualified; for there is certainly no other of the islets that border the British coasts which can pretend to vie in any respect with this "gem of the ocean." In beautiful and sublime scenery, much of it of a kind peculiar to itself, the Isle of Wight is surpassed by few spots on the globe. A considerable portion of its coast presents an impregnable rampart, composed for the most part of cliffs of chalk, intermixed with flint or clay, and in many places rising to the height of some hundreds of feet above the waves that lash its base. Some of the most elevated of these rocks occur in the course of the range that extends in both directions from the west point of the island, forming Alum Bay to the north, and what are called the Freshwater Cliffs to the south. An indentation, much smaller than Alum Bay, immediately adjacent to this terminating promontory on the south side, is known by the name of Scratchell's Bay. It is represented in our wood-cut to the right, as seen, along with the other objects to the west of it, from the front of the cave, the magnificent arch of which, 150 feet in height, forms the foreground of the picture. This is one of numerous caves which pierce the Freshwater Cliffs, and vary the extraordinary aspect of that vast wall of whiteness marked with parallel inclined lines of black, "only to be compared," to use the language of Sir Henry Englefield, "to a ruled sheet of paper." In many parts these cliffs are 400 feet in height;—at one place, called Main Beach, their elevation is not less than 600 feet. Here, however, the precipice is not quite perpendicular. The singular-looking rocks that are seen rising out of

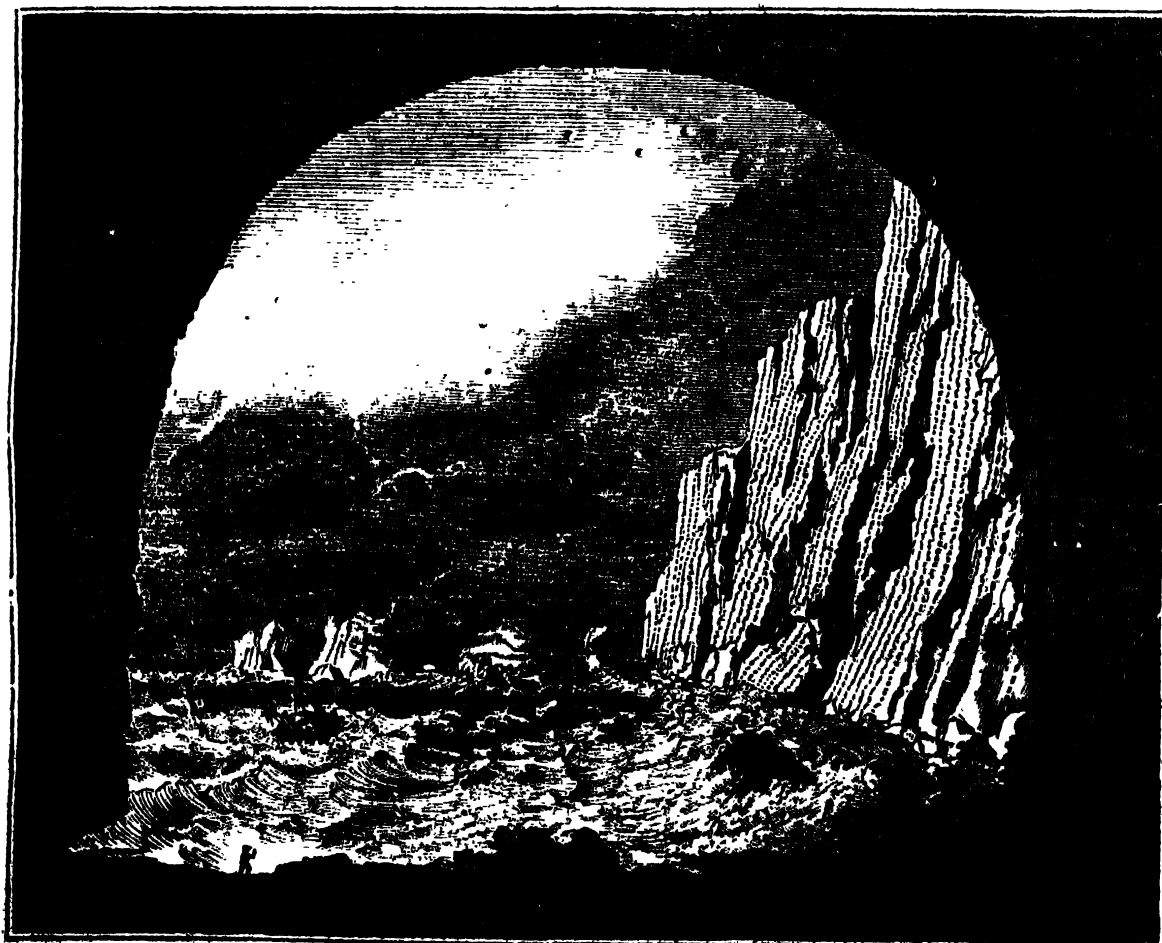
* Whence it derives its name of the "Bedford Level,"

the water beyond the promontory are the celebrated Needles, a name, however, which they seem to have derived chiefly from one of their number, much taller than any of those now remaining, which has long disappeared. It fell suddenly in the year 1764. Sir Richard Worsley, in his 'History of the Isle of Wight,' states, that it was about 120 feet in height above low water mark, and much more like a needle in shape than any of those that now remain. A representation of the Needles, as they formerly appeared, is given in that work.

Scratchell's Bay, and all the neighbouring cliffs, are frequented by vast swarms of sea fowls, which the country people are in the habit of catching by the hazardous method, practised also in the Shetland and the Feroe Islands, of being swung over the brow of the rock by a rope made fast in the earth above. Worsley enumerates puffins, razorbills, willocks, gulls, cormorants, Cornish choughs, daws, starlings, and wild pigeons, as among the species that frequent the rocks, and lodge in the shelving strata. Some remain constantly here; others come only to lay their eggs. "They sit," says the writer just quoted, "in thick rows, and discover themselves by their motions, though not individually visible." From these retreats they are driven or frightened away by the stick of the adventurous bird-catcher. When Worsley wrote (1781), the soft feathers obtained from a dozen birds were sold

for eightpence; and the carcasses were then disposed of, at the rate of a halfpenny each, to fishermen, who used them for bait to their crab-pots.

Scratchell's Bay is often visited by tourists. The most magnificent view down into it, Sir Henry Englefield says, is obtained by descending a very steep grassy slope, to the edge of one of the cliffs in the neighbourhood, and from this point the whole of the Needles may be seen; but he advises strangers not to attempt to find their way down without taking a guide along with them. In his splendid folio, entitled 'A Description of the Isle of Wight,' (London, 1816,) Sir Henry has given various views of the scenery in the neighbourhood of this spot. "Nothing can be more interesting," he remarks, "particularly to those who take pleasure in aquatic excursions, than to sail between and round the Needles. The wonderfully coloured cliffs of Alum Bay, the lofty and towering chalk precipices of Scratchell's Bay, of the most dazzling whiteness and the most elegant forms, the magnitude and singularity of the spiry, insulated masses, which seem at every instant to be shifting their situations, and give a mazy perplexity to the place, the screaming noise of the aquatic birds, the agitation of the sea, and the rapidity of the tide, occasioning not unfrequently a slight degree of danger, all these circumstances combine to raise in the mind unusual emotions, and to give to the scene a character highly singular, and even romantic."



[Scratchell's Bay and the Needles.]

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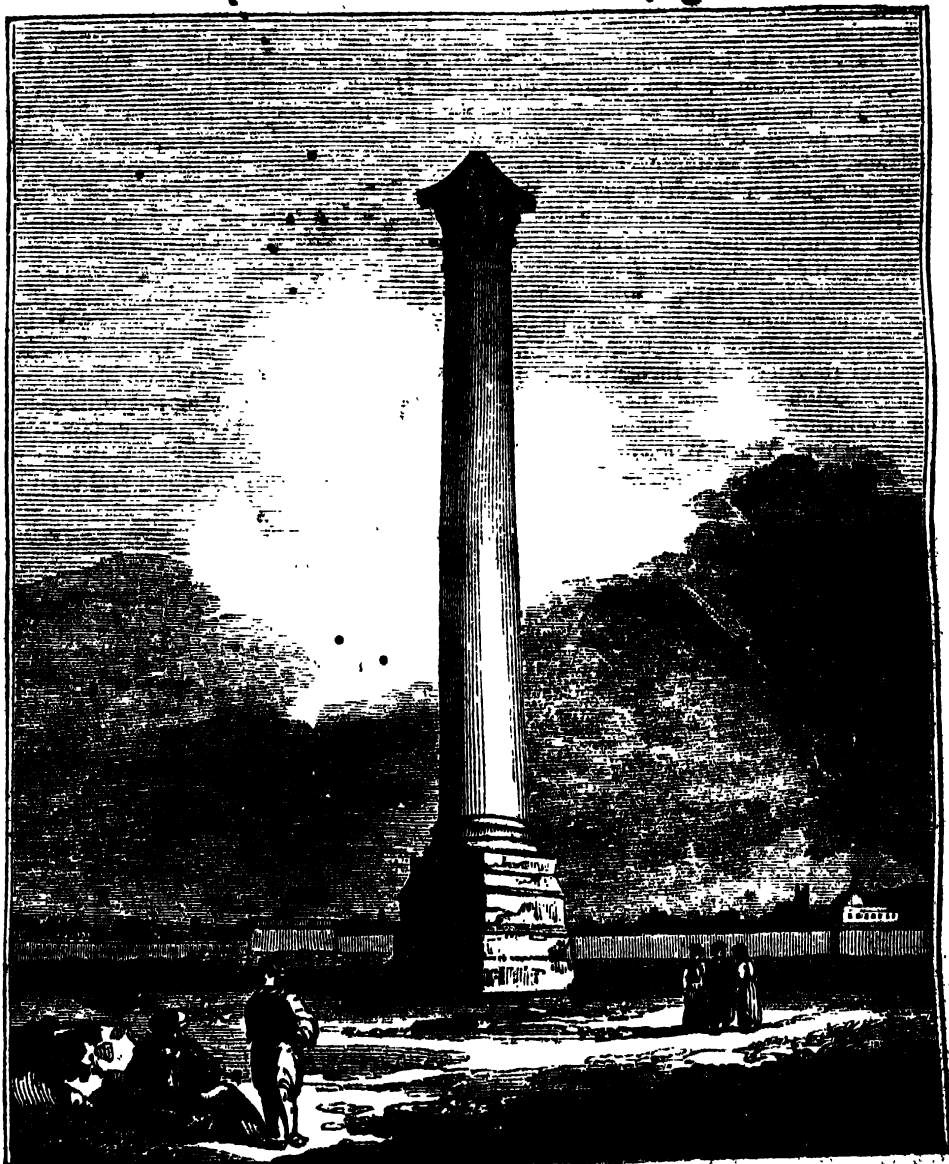
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[APRIL 12, 1834.]

POMPEY'S PILLAR.



[Pompey's Pillar.]

SCARCELY any one of the monuments of antiquity is involved in so much mystery and uncertainty, or has afforded so wide a field for conjecture and the speculations of the scientific, as that known by the name of Pompey's Pillar; yet it is not one of those relics that have only recently been brought to light, but, on the contrary, is so intrusively visible as to be descried for miles around; and is one of the first objects discerned by ships making this part of the coast of Egypt, which is everywhere very low. All travellers agree that its present appellation is a misnomer; yet it is known that a monument of some kind was erected at Alexandria to the memory of Pompey, which was supposed to have been found in this remarkable column. Mr. Montague thinks it was erected to the honour of Vespasian. Savary calls it the Pillar of Severus. Clarke supposes it to have been dedicated to Hadrian, according to his reading of a half-effaced inscription in Greek on

Vol. III.

the west side of the base; while others trace the name of Diocletian in the same inscription. No mention occurring of it either in Strabo or Diodorus Siculus, we may safely infer that it did not exist at that period; and Denon supposes it to have been erected about the time of the Greek emperors or of the caliphs of Egypt, and dates its acquiring its present name in the fifteenth century. With regard to the inscription, we may observe, that it might have been added after the erection of the column.

Pompey's Pillar stands on a small eminence about midway between the walls of Alexandria and the shores of lake Mareotis, about three-quarters of a mile from either, and quite detached from any other building. It is of red granite; but the shaft, which is highly polished, appears to be of earlier date than the capital or pedestal, which have been made to correspond. It is of the Corinthian order; and while some have eu-

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might be preserved. The Parsees pretend that the fires which now burn in their temples have been propagated from that which Zoroaster supplied, and which has never yet been lost, although often only preserved by miracles from extinction. The temple fires were cherished with great care and respect. They were only fed with certain woods accounted particularly pure, and deprived of the bark; and were never blown, either with bellows or by the breath. Indeed, the Magi never approached the sacred fire but with covered mouths, lest it should be defiled by their breathing; and to cast an unclean thing upon it, or otherwise to pollute it, was a crime punished with death. Besides this reverence paid to fire, a certain respect was entertained for the other elements, which they were also careful not to pollute. Hence their peculiar custom in the disposal of the dead; for they considered that the fire would be defiled if they were burned, the earth if they were interred, and the water if they were submerged. The bodies of the dead were, therefore, exposed on towers or platforms until reduced to skeletons by birds of prey, and by the natural progress of decomposition: the bones then seem to have been collected, enclosed in jars, and deposited in barrows, or large mounds of earth. It is said that they drew conclusions concerning the condition of the deceased in another state of existence, from observing what part of the body was first attacked by the birds.

These opinions and practices continued to prevail in Persia until the conquest of that country by the Arabians, who were actuated by a particularly bitter enmity to the worshippers of fire. At the present time the term "Gaur" (Infidel) is applied, in a general way, to all who are not Moslems, in Turkey and other Mahomedan countries; but in Persia, when simply used, it is always so understood of the Parsees as to become, in effect, a proper name. On the subjection of the country to the Arabians, the bulk of the nation probably embraced the faith of the conquerors, and most of the remainder were obliged, by the persecution they suffered, to emigrate. The small number now in that country are found chiefly in the great commercial city of Yezd, in the sandy and sterile province of Kerman. They have there been permitted to erect a fire-temple, in which they say the sacred fire of Zerdusht is preserved, and they are allowed a magistrate of their own. But in return for these privileges, heavy taxes are extorted from them; and the Gaurs generally are regarded with the utmost aversion and contempt by the present race of Persians, who do not hesitate to propagate the most absurdly horrible stories of this really quiet and inoffensive people,—accusing them of eating children, and other enormities.

But the great body of the Parsees, to the number of 120,000 families, reside within the limits of the British Presidency of Bombay; and they contribute the large proportion of 6000 families to the population of the capital. The British government in India does not possess a body of more useful, wealthy, and well-behaved subjects than the Parsees; nor has any other class of natives connected itself so intimately with the English. The habits of this people do not oppose such barriers as obstruct a free intercourse with Hindoos and Mahomedans. They have no castes,—they eat all kinds of food,—they drink wine, and have but one wife. The wealthier families have adopted much of the English manner of life, and the sons are taught the English language. Almost every European house of trade in Bombay has a Parsee partner, who frequently furnishes the principal part of the capital. Nearly all the island of Bombay belongs to the Parsees. They are exceedingly munificent in their charities, relieving the poor and distressed of all tribes, and supporting their own poor in so liberal a manner that a Parsee beggar is un-

known. The more opulent are merchants, ship-owners, and extensive land-holders; while the humbler orders are cultivators, weavers, shop-keepers, and follow most of the mechanic arts except those connected with fire. In consequence of their scruples in this respect, there are among them no silversmiths, or other workers of the metals; and the use of fire-arms being abhorrent to their principles, none are soldiers. As they concur with their ancestors in the dislike of a seafaring life, none of them are sailors;—in them this is probably a matter of principle, but it is singular that the modern Mahomedan Persians participate fully in this feeling, and, indeed, retain among them more indications of the ancient religion than they would like to be told. We may, as instances, mention that the figure of the sun is still impressed on some Persian coins; and a festival is still observed which was originally instituted in honour of that luminary. This account of the present condition of the Parsees shows that they have greatly prospered under the English government; for, about a century since, the Parsees of India were represented by travellers as being in a very degraded and depressed condition; and, until of late years, they have been very much misunderstood and misrepresented.

The Parsee population is divided into clergy and laity (Mobed and Bodeen). The clergy and their descendants are very numerous, and distinguished from the laity by wearing a white turban; but they follow all kinds of occupations, except a few who are particularly selected for the service of the churches. These are plain and unornamented buildings, crowded every day by the clergy, but attended by the laity only on certain days. The mass of the people have, with the dress, adopted many of the Hindoo customs, and the language of Guzerat; and very few are acquainted with the language of their original country, or study the history of their race.

The modern Parsees retain most of the practices and opinions of the ancient Magians. At Bombay they may be seen, every morning and evening, crowding to the esplanade to salute the sun at its appearance and departure. They observe very nearly the ancient mode in the disposal of the dead. The bodies are exposed on a stone platform, inclosed by high walls, and are soon consumed by birds of prey. The bones are collected in a sort of well, in the centre of the platform, to which there is access by a subterraneous passage to facilitate the occasional removal of the bones. No strangers are allowed to witness the obsequies, or, indeed, to examine the platforms, of which there are five in the island of Bombay, but not all in use. Opulent persons have for their families private sepulchres of a similar construction. As a matter of principle, it does not appear necessary that the bodies should be exposed to any other action than that of the elements, for in some private sepulchres the services of the birds of prey are dispensed with, and their ingress prevented by an iron grating.

The sacred book of the Parsees is called the Zendavesta, and claims Zoroaster for its author. In many particulars it coincides so remarkably with the Hebrew Scriptures as to countenance the conjecture that, if really of such antiquity as it pretends to, the author had obtained a knowledge of the Jewish religion from Daniel, or some other of the Jewish captives at Babylon and Susa. The Parsees of India have, of late years, exhibited considerable anxiety to acquire information concerning the religious practices and opinions of their ancestors; and, in order to obtain it, by collecting books and otherwise, they have sent occasionally intelligent persons to Persia. By this means, they, some years ago, obtained a copy of the 'Desatir,' which, with an English version made by a Parsee priest, has been printed at Bombay under British patronage. The book pos-

sesses considerable interest; but, although it pretends to high antiquity, contains internal evidence of having been written at a period considerably later than the conquest of Persia by the Arabians. As the work is very rare in this country, it may not be amiss to quote the commencement as a specimen:—

“Let us take refuge with Mezdân from evil thoughts which mislead and afflict us. In the name of Shemtâ, the bountiful, the beneficent, the kind, the just! In the name of Lâreng! The origin of Mezdân's being who can know? Except himself, who can comprehend it? Existence, and unity, and identity are inseparable properties of his original substance, and are not adventitious to him. He is without beginning, or end, or associate, or foe, or like unto him, or father or mother, or wife, or child, or place, or position, or body, or anything material, or colour, or smell. He is living, and wise, and powerful, and independent, and just; and his knowledge extends over all that is heard, or seen, or that exists: and all existence is visible to his knowledge at once, without time; and from him nothing is hid. He doth not evil, and dwelleth not with the evil-inclined: whatsoever he doeth is good.”

MAHOMET II.

MAHOMET II., the Turkish emperor, surnamed “the Great” and “the Victorious,” was born at Adrianople, in the year 1430, and was first called to the Othman throne in the thirteenth year of his age, by the voluntary abdication of his father, Amurath II. But in the year following (1444), the welfare of the empire, which was menaced by the King of Hungary, recalled Amurath to the head of the army and of the government until the danger was over-past, when he again withdrew from public life. Four months after this second abdication, a revolt of the janizaries, and the warlike preparations of Christian princes, apprized Amurath that the reins of empire had been confided to hands not yet strong enough to guide them. Controlling, therefore, his desire for retirement, he resumed the sovereign power, and retained it until his death in 1451. On both these occasions Mahomet resigned the supreme authority into his father's hands without a murmur; but he never forgave the ministers by whom the measure had been advised.

He commenced his new reign by some acts of cruelty in the interior of the seraglio. Under the pretext of assuring his own repose and that of the empire, he caused to be destroyed his young brother, whom Amurath, in his last moments, had earnestly recommended to his kindness and protection; and then, to appease the cries and the despair of the poor child's mother, he delivered up to her vengeance the person by whom his sanguinary order had been executed.

We do not think our readers would be much interested if we traced the progress of this famous monarch in that career of conquest which commenced very soon after his accession to the throne, and in which he is flatteringly described as having won two empires, twelve kingdoms, and upwards of two hundred cities, and certainly established a claim to a place not the lowest among those whom it is the custom to call “Great.” We shall, therefore, limit our account to those operations which transferred to the Turkish dominion the capital of the Christian Empire in the East.

On his accession, Mahomet renewed the peace with the Greek Emperor, Constantine, to whom, at the same time, he agreed to pay a pension for the expenses and safe custody of his uncle Orcan, who had, at a previous period, withdrawn to the court of Constantinople for safety. The carelessness of the sultan in the observance of this clause of the treaty excited the complaints of the

emperor, with the imprudent threat that, unless the pension were regularly paid, he would no longer detain Orcan. This threat seems to have afforded the sultan a pretext for rekindling the war. Had that been wanting, he would, doubtless, soon have found some other; for the beautiful city designed at its foundation to be the capital of the civilized world, and within whose walls the “Empire of the East” was almost confined by the encroachments of the Turks, had long been an object of desire to that ambitious nation, and they had previously made attempts to obtain possession of it. Mahomet, therefore, determined to complete the conquest of the feeble empire by the capture of Constantinople; and to terminate by one terrible catastrophe the strife of many ages between the Moslems and the Greeks. He commenced his operations by building a fortress on the European bank of the Bosphorus,—about six miles from Constantinople,—opposite another which his grandfather had erected on the Asiatic shore. This he furnished with troops and formidable artillery, one piece of which, cast in brass by an Hungarian engineer, could carry a ball of 600 lbs. weight to a distance of 2000 yards. The sultan was thus enabled to close the entrance of the Black Sea against the Latins, by which the commerce of Constantinople was ruined, and its inhabitants, whose principal supplies of food were drawn from that quarter, threatened with starvation. Every preliminary measure having been completed, Mahomet at length appeared before Constantinople, on the 2nd of April, 1453, at the head of an army of 300,000 men, supported by a formidable artillery, and by a fleet of 320 sail, mostly store-ships and transports, but including 18 galleys of war, while the besieged could not muster more than 10,000 effective soldiers for the defence. This vast disparity of force leaves little room for admiring the prowess and military skill of the victorious party. The sultan himself superintended all important operations; and whilst he punished the slightest disobedience with instant death, he was not sparing in magnificent promises of reward to stimulate his troops to exertion. He pledged himself that, when the city should be taken, he would give it up for three days to their pillage, reserving to himself the buildings only. This promise had great effect upon the men, each of whom hoped to be enriched by the spoil. But the besieged made so vigorous a defence under the brave Emperor Constantine Palæologus, that for fifty-three days all the efforts of the assailants were unavailing. The defenders of the city had drawn strong iron chains across the entrance of the port, and Mahomet saw, that unless he could get some of his vessels into the Golden Horn*, his success was doubtful, and that at best the defence might be greatly protracted. He, therefore, contrived to conduct a part of his fleet for ten miles over the land on a sort of rail-way, from the Bosphorus into the harbour, and caused a floating battery to be constructed and occupied with cannon. This sealed the fate of the imperial city. Constantinople was taken by storm on the 29th of May; and the last Emperor of the East was killed, sword in hand, in the breach by which the enemy entered. According to the promise of the sultan, the inhabitants and their property were left for three days at the disposal of his army. The terrified people fled to the cathedral of St. Sophia, and other sacred places, for safety, many hoping that the barbarians would not violate such sanctuaries, and most expecting that a miracle would be interposed in their behalf. The closed doors were broken with axes; but the Turks are not, even by their enemies, accused of an immoderate or wanton effusion of Christian blood. As they encountered no resistance, they were content to select from the multitude those whose appearance afforded promise of

* The reader will find a plan of Constantinople in No. 24 of the ‘Penny Magazine,’ which will elucidate this account.



[Mahomet II., from a Drawing in the British Museum, by Gentile Bellini.]

a profitable ransom or sale as slaves. The male captives they bound with cords, and the females with their veils and girdles, and drove them, to the number of 60,000, from the city to the camp or fleet, where they who could not obtain the means of purchasing their ransom were exchanged or sold, according to the caprices or interest of their masters.

On the expiration of the three days allowed for pillage, Mahomet entered Constantinople in triumph, attended by his viziers, pashas, and guards. "At the principal gate of St. Sophia he alighted from his horse, and such was his jealous regard for that monument of his glory, that, on observing a zealous Mussulman in the act of breaking up the marble pavement, he admonished him with his scimitar that if the spoil and the captives were granted to the soldiers, the public and private buildings had been reserved for the prince. By his command, the metropolis of the Eastern church was

transformed into a mosque: the crosses were thrown down, and the walls, which were covered with images and mosaics, were washed and purified, and restored to a state of naked simplicity. On the same day, or on the ensuing Friday, the *muezzin*, or crier, ascended the most lofty turret, and proclaimed the *ezan*, or public invitation to prayer in the name of God and the Prophet; the imaum preached; and Mahomet II. performed the *namaz* of prayer and thanksgiving on the great altar where the Christian mysteries had so lately been celebrated before the last of the Cæsars. From St. Sophia he proceeded to the august but desolate mansion of a hundred successors of the great Constantine; but which in a few hours had been stripped of the pomp of royalty. A melancholy reflexion on the vicissitudes of human greatness forced itself upon his mind, and he repeated an elegant distich of Persian poetry:— 'The spider has wove his web in the imperial

palace; and the owl hath sung her watch-song on the towers of Afrasiab."—*Gibbon*.

The conflicting statements of the Greek and Turkish historians render it difficult to form a correct judgment of the sultan's conduct to the vanquished, or of his character in general. The most probable conclusion is that the fierceness engendered by the strife of war soon gave place to human sympathies. That he was terribly severe when his clemency was abused, or his mandates disobeyed, and cruel when his interest stimulated, we have abundant evidence to show; but that gratuitous cruelty which the Greeks attribute to him is not clearly proved, nor does it consist with the cultivated mind and refined tastes which even his enemies tell us he possessed. It is certain that he caused the body of Constantine, which was discovered under a heap of slain by the golden eagles embroidered on the shoes, to be honourably interred. He declared himself the friend and father of the vanquished people: he paid to his soldiers the ransom of several of the principal captives; and although many of the noblest of the Greeks were soon after butchered in the principal square of the city, there is room to suspect that this was in punishment of a conspiracy against him. Having determined to make the conquered city the capital of his empire, he induced the remnant of its inhabitants to return by promises of safety and protection which were not violated. Half the churches in the city were made over to their use; and the sultan gave to their patriarch a solemn investiture after the manner of the Greek emperors.

Having thus related somewhat in detail the most splendid circumstance in the life of Mahomet II., we spare our readers the enumeration of the victories which established his dominion from the Euphrate to the Adriatic, as well as the various checks which his arms received from Hunniades and Scanderbeg,—from the Knights of Rhodes and from the Persian king, in an expedition against whom he died, in the year 1481, being the fifty-first of his age; and at a time when he had filled Europe with new consternation by the recent siege and sack of Otranto in Naples, and the threatened subjection of Italy and Rome to his power. When dying, he directed the words "I would have taken Rhodes, and conquered Italy," to be engraved on his tomb, probably in order to stimulate his successors to fulfil his intentions.

In characterizing this celebrated prince, we shall adopt, with some modifications, the statement of Gibbon. Under the tuition of the skilful masters provided by his father, Mahomet advanced with an early and rapid progress in the paths of knowledge; and besides his native tongue it is affirmed that he spoke or understood five languages,—the Arabic, Persian, Hebrew, Latin, and Greek. With geography and history he was well acquainted; and the lives of the heroes of the East, and perhaps of the West, excited his emulation. His skill in astrology is excused by the folly of his time and people, and implies some acquaintance with mathematical science; while his taste for the arts is indicated by his liberal invitation and reward of the painters of Italy. His sobriety is attested by the silence of the Turkish historians, who accuse only three of their sultans of the vice of drunkenness; and it is related that he cultivated his gardens with his own hands, and sold part of the produce to purchase the other articles required for his table. But, with all these evidences of his high merit, there can be no doubt that the circumstances of his life often indicated passions at once inexorable and furious. "He was doubtless a soldier," says Gibbon, "and possibly a general; but if we compare the means, the obstacles, and the achievements, Mahomet II. must blush to sustain a parallel with Alexander and Timour."

Our wood-cut is taken from a drawing of Mahomet II.

executed by Gentile Bellini. The drawing is in the British Museum, forming one of Mr. Payne Knight's collection. The sultan having applied to the Venetian government to send him a skilful painter, this artist was selected for the purpose, and proceeded to Constantinople. He was well received by Mahomet, for whom he painted several pictures, and was, on his departure, presented with a chain and collar of gold, and a purse of 3000 ducats. We laugh now at the fable that the sultan, having noticed a defect in the painting of a head recently separated from the body, purposely struck off the head of a slave to demonstrate to Bellini the truth of his criticism. Gentile, on his return to Venice, executed some engravings of his own works on metal. As a painter, he possessed considerable talent, although the dry and hard style of his works is displeasing. He gave the habits of Turks and Venetians to the characters he represented, but he excelled in the Turkish costume. Bellini died at Venice in the year 1501.

A DEPRAVED HABIT CURED, AND A FALSE PREJUDICE OVERCOME.

[From a Correspondent.]

A DISTINGUISHED engineer brought with him from Scotland a stone-mason to be employed on a great national work. The man had many good qualities, but he had one besetting sin:—he regularly got drunk every Saturday night, and the Sunday was devoted either to the alehouse, or spent in bed to recover from the effects of intoxication. His work, however, was never neglected. On the Monday morning he was always at his post, and continued there throughout the week. The pay-table first taught him to drink, and hence the Sunday became to him a day of degradation. On one occasion he was tempted to trespass on the middle of the week, and to spend part of a day in an alehouse. A few weeks after another half day was wasted in the same manner; and, as the downward steps of vice are often imperceptible, he gradually crept on from half a day to a whole day, until at last two entire days were weekly devoted to drinking. The engineer had more than once spoken to him of his Saturday night's potations, and expostulated with him on his conduct. Seeing, however, that hours formerly devoted to work were now thus wasted with dissolute companions, he one day said to him, "Robert, you know I brought you from Scotland, and placed you in a situation which enabled you to obtain very good wages. But you have not improved its advantages as you ought, and latterly you have not been contented with drinking on the Saturday night, but have encroached on the week, and your work is now seriously neglected. I find that you now spend not less than seven shillings weekly, and I perceive that your wife and children do not exhibit their accustomed neatness and order. I have formed a decided resolution: You must either abandon drinking, and deposit with me a portion of the sum you usually spend at the alehouse, or leave the works." Robert was startled:—he had feelings, and all traces of good principle were not gone. He begged time to consider; and at length pledged his word to abandon the alehouse altogether, and to leave three shillings a week in the hands of his employer. That judicious friend applauded his resolution, and administered a few words of comfort and advice, which a kind heart has always at command and knows so well how to apply. He said, "I will deposit your weekly sum in the savings' bank." "No," said Robert, "I have no objection to deposit the money with you, Sir; but I consider the establishment of savings' banks to be an attempt of the government to get the money of the poor into their own hands." The engineer reasoned with him on the absurdity of such a supposition; explained the real

character of those useful institutions:—that they were expressly designed to benefit the working classes; and that the money deposited in them was perfectly safe, and every shilling gained interest. Robert was inflexible. He had imbibed against savings' banks a prejudice which could not be shaken. He could resolve to leave the alehouse and the skittle-ground; and he could, with satisfaction, intrust his money in the hands of the engineer,—but it must not be deposited in the savings' bank.

From that time Robert was so constantly at his work, and exhibited such sober and regular habits, as in a short time fully re-established him in the confidence and esteem of his employer. Even on the Saturday nights he was no longer to be found at the alehouse; and his Sunday leisure was employed in a befitting manner. His whole appearance became altered, and everything about him denoted a reformed man. Several years had passed without any relapse into his former habits, when the engineer called him one day into the office, and inquired if he had kept any account of the money he had deposited weekly in his hands. Robert said he had not. "See what a little fortune you possess, then;" said his employer, handing to him a depositor's book from the savings' bank, with his own name at the head of the account. "Forty-six pounds seven shillings!" exclaimed the astonished Robert. "Do I possess so large a sum, Sir?" "Yes," replied the engineer, "I thought it my duty to depart from your injunction relative to the savings' bank; had the money remained in my hands you would now only have possessed forty-two pounds; you have consequently gained upwards of four pounds by my having deposited it in the savings' bank, and the whole can be had at any time after a few days' notice. Now then, Robert, will you say that the savings' bank is not an institution serviceable to man—serviceable to every one who wishes to make himself independent by providing, in the time of strength and prosperity, against the hour of weakness and need—against the rainy day by which, at some time or other, most men are overtaken?" Robert's mind was deeply impressed; and, with much emotion, he thanked his kind benefactor for rescuing him from the paths of drunkenness and degradation, for leading him to seek his respectability and happiness in regular habits and home enjoyments, and for disregarding his prejudices against savings' banks, making him the contented possessor of a large sum, which, but for so happy and decisive an intervention, would have been wasted in the haunts of infamy and vice.

SCARBOROUGH CASTLE.

THE ruin of Scarborough Castle, on the coast of Yorkshire, is one of the most remarkable objects that stand out from the somewhat tame prospect presented by much of the northern part of our island as seen from the German Ocean. It crowns a precipitous rock, whose eastern termination, which advances into the sea, rises about 300 feet above the waters. The principal part of the ancient castle now remaining stands at a considerable distance back from this bold and inaccessible front, but on ground which is very nearly as elevated. It is a huge square tower, still nearly 100 feet high, but the walls of which show, by their ragged summits and by other indications, that its original height must have been considerably greater. Each side is between 50 and 60 feet in length; but, the walls being about 12 feet thick, the space in the interior is only 30 feet square. This inclosed area is now open to the sky; but marks are still discernible of vaultings which had formerly divided the ascent into three stories, each of which must have been about 30 feet from the floor to the ceiling. An immense fire-place still remains on the ground floor; but beneath that there is another

apartment, hollowed out under the earth, which is now filled with stones and rubbish. The walls on the outside are faced with hewn stones of a square shape, and are pierced in various places with windows, six feet deep and three broad, formed by semicircular arches resting on strong pillars. This tower was probably the keep of the ancient castle, and, as usual, has been preserved from destruction by its extraordinary solidity and strength, long after time has swept away nearly all the surrounding parts of the building. It stands immediately within the great gate of entrance to the fortress, which is at the western extremity of the inclosure, and of which this tower was no doubt the main defence. The access to the promontory from this side is by a steep ascent; and the gate is guarded by a deep fosse or ditch, with a draw-bridge over it. The whole inclosed space comprehends about nineteen acres; and the fosse before the gate is continued along the entire length of the wall leading southward from that point to the sea. As the old feudal stronghold looks down upon the sea on the one hand, it has the town of Scarborough stretched below it and around it on the other.

Scarborough Castle was built about the year 1136, by William, Earl of Albemarle and Holderness, one of the most powerful of the Norman nobility then settled in England. His grandfather, Odo of Campania, had come over with the Conqueror, who had given him one of his own daughters, Adeliza, in marriage. William, surnamed Le Gros, or the Fat, being possessed of extensive estates in Yorkshire, was permitted by King Stephen to build this fortress as a residence and defence for himself against the turbulent and only half-subdued inhabitants of the district. When Henry II. came to the throne, with the view of curbing the power of his fierce nobility, he ordered the demolition of most of those places of strength which, in the preceding reigns, had been erected in all parts of the kingdom; but, on viewing the castle of Scarborough, he was struck with the advantages of its position, which made it quite impregnable in those times; and, instead of destroying it, he only seized upon it and declared it the property of the crown. It has ever since remained one of the royal castles; and it is still occupied by a small garrison, consisting usually of a few invalids, who are accommodated in barracks of modern erection.

The castle, after it was taken possession of by Henry II., is stated to have been enlarged and strengthened by that king; and one old chronicler asserts that he entirely rebuilt it. We may suppose from this that the additions which he made to it were very extensive. Its subsequent history has been elaborately investigated by Mr. T. Hinderwell, in his 'History of Scarborough*.'

The most memorable event in its history is the siege it sustained in the civil wars of the seventeenth century, when it was held for the king by Sir Hugh Cholmley. The parliamentary forces sat down before it in the latter part of the year 1643; but the first assault was made on the 18th of February, 1644, under the command of Sir John Meldrum, a Scotch military adventurer of high renown for courage and ability. By this attack the besiegers obtained possession of the town; but the castle resisted their boldest efforts. They afterwards took up their principal station in the parish church, which is only a few hundred yards from the castle gate; and against this old building, accordingly, the cannonade of the garrison was directed with such effect that the east end of it, forming the choir, was in a short time battered down. A few years ago it still remained a heap of ruins. On the 17th of May, 1645, another attempt was made to storm the fortress, which was again repelled with great slaughter of the assailants, Meldrum himself having received a wound, of which he died on the 3rd of June following.

* See pp. 35—36, 2nd Edit. 8vo. 1811.

By this time, however, both the strength and resources of the garrison were nearly exhausted; and compelled at length, by disease and famine, which had reduced his men to a few miserable invalids, the governor, on the 22nd of June, surrendered the place on honourable conditions to Sir Mathew Boynton, who had been appointed Meldrum's successor. A pamphlet of the time, quoted by Mr. Hinderwell, says, "Many of Sir Hugh's officers and soldiers belonging to the castle were in such a weak condition that some of them were brought forth in sheets,—others were helped out between two men,—the rest were not very fit to march. The general and common disease was the scurvy. * * * The women in Scarborough could hardly be kept from stoning Sir Hugh." Sir Hugh's wife, a daughter of Sir William Twisden, Bart., of Peckham, in Kent, was with her husband during the whole time of the siege; and Mr. Hinderwell has given some extracts from a manuscript memoir written by Sir Hugh Cholmley, which show this lady to have been a heroine worthy of the times in which she lived. "She endured much hardship," says Sir Hugh, "yet with little show of trouble; and in the greatest danger would never be daunted, but displayed a courage above her sex; and while the castle was besieged she did not omit to visit the sick persons, and take extraordinary care of them, making such help and provision as the place would afford: inasmuch that her maids were so overwrought and toiled with it, that one of them, in the night, stole away, thinking to get into the town; but the enemy's guards, taking her for a spy, caused her to return, which was acceptable to her lady; there not being sufficient persons in health to attend the sick. At the surrender of the castle, she procured an article that the garrison

at my house at Whitby might be removed, and she have the liberty to live in it; but the captain in possession liked the house so well that he did not quit it until one of his servants died of the plague; and before he durst return again, she unexpectedly (leaving her own daughters behind her at one Mr. Percy Hay's, near Malton) adventured over the moors in a dangerous season, they being then covered with a thick snow, and so got to the house, and kept possession, though in a sad condition. Her two sons were beyond sea; and her girls she durst not bring thither in respect of the late illness. She was ill accommodated with all things; the house being plundered, having nothing but what she borrowed, yet her spirit would not submit to complain. And when Sir John Meldrum had sent propositions, with menaces that, if they were not accepted, he would that night be master of all the works and castle, and in case one of his men's blood was shed, would not give quarter to man or woman, but put all to the sword; she conceiving that I would relent in respect of her being there, came to me without any direction or trouble, and prayed me that I would not, for any consideration of her, do aught which might be prejudicial to my own honour on the king's affairs."

A few years after this, Scarborough Castle stood another siege; its governor, Sir Mathew Boynton, the successor, and perhaps the son, of the person of the same name to whom Cholmley had surrendered, having, in 1648, declared for the king. He did not, however, stand out so long as Cholmley had done; and the place fell into the hands of the parliamentary forces on the 19th of December in the same year. This is the last occasion on which Scarborough Castle figures in our military annals.



Ruins of Scarborough Castle.]

THE PENNY MAGAZINE

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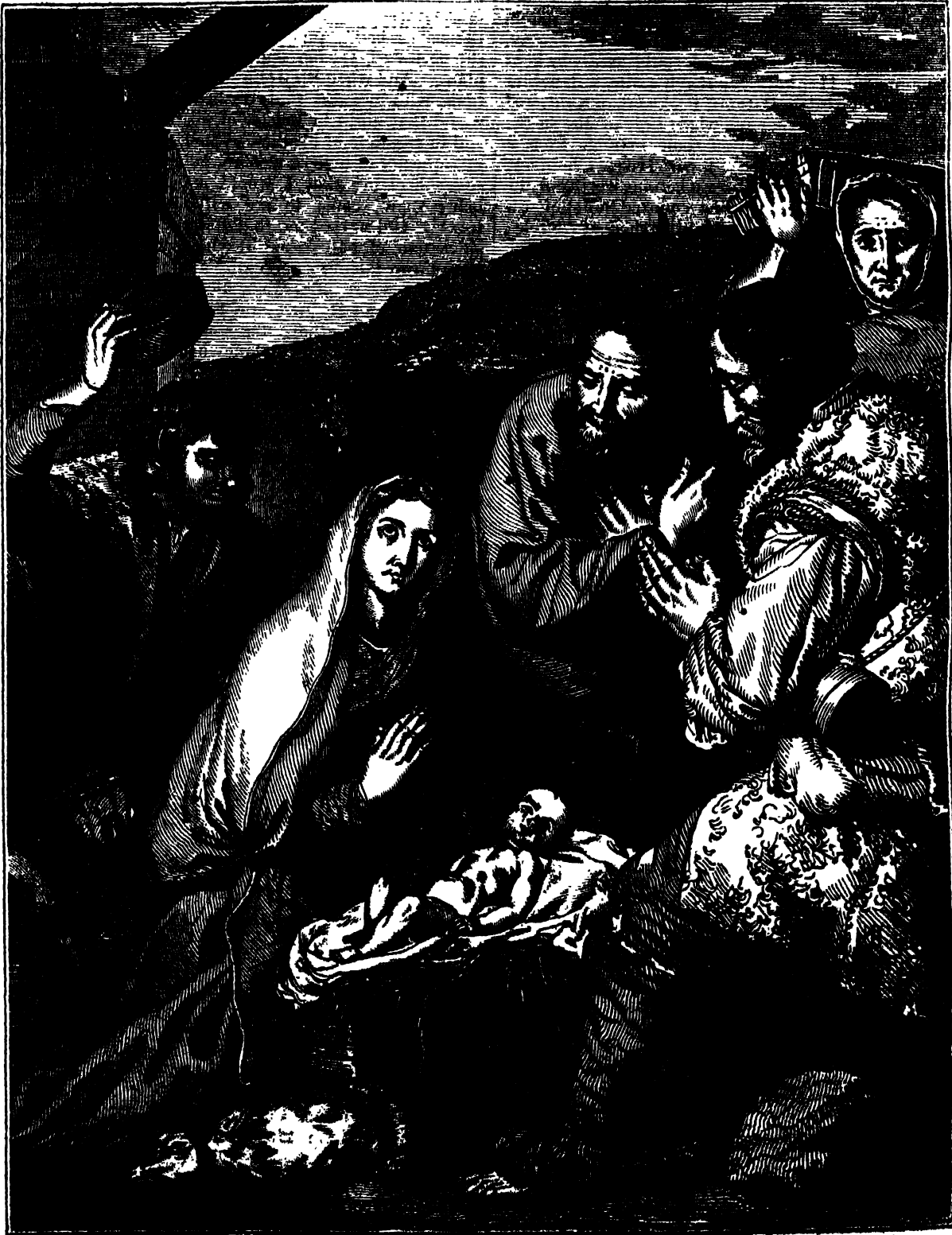
Society for the Diffusion of Useful Knowledge.

131.]

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SPAGNOLETTA.



[The Adoration of the Shepherds,—from the Picture in the Musée Napoleon, by Spagnoletto.]

JOSEPH RIBERA is the real name of this distinguished artist, Spagnoletto merely indicating the country of his birth. Spain and Naples disputed for some time as to his birth-place; but it is now generally acknowledged

that he was born at Xativa, now San Filippo, in the kingdom of Valencia, in the year 1588. In 1606 he arrived at Naples, where he was so much captivated by the striking and powerful style of Michael Angelo Caravaggio, that he courted and obtained his favour, and was encouraged and instructed by him during his first residence in that city. He always regarded the works of Caravaggio as his best models. At one time, indeed, after having seen the frescoes of Raphael and Annibal Carracci at Rome, and those of Correggio at Parma and Modena, he was induced to attempt a style of greater tenderness and grace than that to which he had been accustomed; but in this style he was so unsuccessful that he soon decided on returning to the system of his old master. The characteristics of this school were its truth, its force, and the striking effect of its lights and shadows. The talents of Ribera were not tardily rewarded. He was appointed court-painter to the viceroy of Naples, the Duke of Ossuna, and overseer of all the royal works, in which post he is said to have conducted himself with great haughtiness towards less fortunate artists, and is said to have shown a particular jealousy of Domenichino. In this situation he executed several capital pictures, some of which—particularly the Descent from the Cross, with a Martyrdom of St. Januarius, which is considered worthy of Titian, and a St. Jerome—claim a place among the masterpieces of the art. The pencil of Ribera produced also a great number of anchorites, prophets, and apostles; and into his pictures of ordinary life he was fond of introducing philosophers and old men. But the subjects which he preferred, and in which he excelled, were of a horrible character, such as the 'Flaying of St. Bartholomew.' He executed subjects of this fearful nature with a minute accuracy, which, however curious, can scarcely be called an excellence in art, for it destroys those pleasurable sensations which it is the chief object of art to produce. One of his most striking works of this class is that of 'Ixion on the Wheel,' which is preserved at Madrid. Among the subjects of gentler character which he occasionally executed, the 'Adoration of the Shepherds' is one of the most celebrated. Our engraving of this performance is taken from the great national work, the 'Musée Français,' in which it is thus mentioned: "Ribera painted the 'Adoration of the Shepherds' several times. There is a repetition of our picture at the Escorial; and we are assured that there is another at Cordova, in the sacristy of the Convent of the Augustines. M. Le Brun thinks that the picture in the Escorial is a copy. That in the Musée Napoleon belonged to the Duke de la Regina: it was given up to France by the king of Naples, in exchange for other pictures belonging to the French, which the Neapolitans had carried off to Rome." It will be observed that the performance is unequal. The principal figures, the 'Virgin and Child,' are deficient in that ideal grace which gave their most touching attributes to the 'Holy Families' of Raffaele and Correggio; but, in truth and character, nothing can surpass the figures of the adoring shepherds. As a whole, it is a picture full of nature and energy.

The principal works of Ribera are at Naples, at Rome, and in the palace of the king of Spain. The cabinets of Italy are also full of pieces attributed to this artist, but they are more probably the productions of his pupils; one of whom, Fracanzani, is the celebrated artist who, having been condemned to perish on the gibbet, obtained the favour, in regard to his profession and talent, of dying by poison in the place of his confinement.

Ribera continued his professional labours to an advanced age; and, being endowed with a prolific imagination, produced his paintings with astonishing

rapidity. After having made a sojourn of some years in Spain, he returned to Italy, and, on his arrival at Rome, received the most flattering notice from the pope, by whom he was knighted. He afterwards established himself at Naples. Some accounts say that a family misfortune, which he accounted a disgrace, drove him to complete solitude, and that he died in some place where he was unknown; but other statements inform us that he died, in good circumstances, at Naples, in 1656, aged seventy-two years. Besides his excellence as a painter, Ribera was a superior engraver with aquafortis.

CHAPPOWS.

THE works of Sir Walter Scott have made most readers well acquainted with the "forays," or predatory incursions, by which the borders of England and Scotland were so much disturbed previously to the union of the two crowns. From the Tigris to the Indus, transactions very similar to such forays are known by the name of "Chappows;" and we imagine that a short account of them may not be without interest, as affording materials for a comparison between the state of this country in the sixteenth and preceding centuries, and a considerable part of Asia in the nineteenth.

Besides the towns and villages which this extent of country, under different rulers, contains, it is abundantly spotted with the encampments of wandering tribes, who, under different names, are probably all members of the same great Turkish family, which has extended its ramifications so much farther westward than the limits we have assigned to the chappow in the form we purpose to describe it. This restriction is necessary, for the foray in some form or other, diversified only by the peculiar habits of a people, exists wherever a government is weak and a frontier much exposed. As we have to consider these tribes only with regard to the chappow, in which their usages differ very little, it will not be necessary to quote their specific denominations, although we would be understood as speaking generally of the people called Turkomans, who live chiefly in the country to the east of Persia, and who differ little, except in a dash of character more wild and savage, from the nomades (Eelauts) who wander in Persia itself; and who, although much under the control of the government, still cherish their lawless habits, and are always ready to avail themselves of any opportunity to indulge them which the weakness or supineness of that government may afford.

Their habits of life make the Turkomans more than usually attentive to the breed and management of their horses, with a particular regard to those qualities which are of most importance to them in their chappows. The horses bred and reared by them are so highly esteemed in Persia, and fetch such good prices, that some of the tribes, compelled by the strength or contrivance of the Persian government to forego their chappows, employ themselves very profitably in rearing horses for sale. They do not relish this employment, however; but look forward in sanguine expectation that such stupid times will not last for ever. "If matters go on in this way," said a member of one such tribe to Sir John Malcolm, "our sons will become a set of blackguard horsedealers instead of gallant warriors, and their children will be instructed in the art of cheating unwary citizens, instead of the more manly occupation of plundering a rich traveller. We shall no more have fine Persian girls to keep our tents clean and dress our victuals, nor active fellows to rule our horses and attend our flocks. What a sad change! And as to our profits in breeding and selling horses, I have known more money given, in one day, for the

ransom of a nobleman or a wealthy merchant, than our whole tribe can now make by trafficking in cattle for a twelvemonth."

These so much prized horses are considerably beyond the average size of the animal in Persia. They measure from fifteen to sixteen hands high, and in shape resemble an English carriage horse of the highest breed. Their unusual size is attributed to the fine pasture-lands on which they are reared; and the astonishing capability of bearing fatigue which they exhibit, to their high blood and the manner in which they are trained. The Turkomans ride them with snaffles, and allow them to go slouching along with their necks loose. These plunderers train their horses as much as we do our racers or hunters; and before they begin their expeditions they put them in complete condition. The marches they then perform are astonishing. They have been known to go one hundred and forty miles in twenty-four hours; and their predatory parties have been ascertained to march, without halting, from eighty to one hundred and ten miles daily, for a fortnight together.

Before proceeding on a chappow, the Turkomans prepare some hard balls of barley-meal, which equally form the subsistence of themselves and their cattle, being, when wanted, soaked in water to fit them for use. It is said to be customary with them in crossing the desert of Kerman, and other deserts in which no water can be obtained, to open a vein in the shoulder of the horse and drink a little of his blood. They consider this to be as beneficial to the animal which loses the blood as to the rider who imbibes it.

The number of persons engaged in a chappow varies greatly. From thirty to fifty mounted robbers, with about half the number of led horses, destined to bring away the spoil, is perhaps a fair average estimate. They do not hesitate to make a bold dash into large towns occasionally, but more frequently some flourishing village is the object of attack. This is sometimes made in the open day; and in an inconceivably short time the dwellings are pillaged, the fields often laid waste, the finest of the young men, women, and children, made slaves, and the whole party is on its homeward flight. The least resistance to them is fatal. The houses are then burnt, the old and feeble murdered, and all the property that cannot be carried away destroyed. Their principal weapon is a spear, rudely formed, with a small piece of steel at the point, and generally from ten to twelve feet long. This is, in their hands, so very effective a weapon that they hold all others in light estimation. "We were one day," says Sir John Malcolm, "looking at a party of the king's guards, each of whom was armed with a sword, a spear, a pair of pistols, and a dagger. Râhman Beg (the Turkoman mentioned before) tossed up his head in contempt, exclaiming,—'What is the good of all this arsenal?—what can a soldier want beyond a spear and a heart?'" Nevertheless the Turkomans have the bow and arrow also in use, but fire-arms are very sparingly employed.

Their treatment of the prisoners they take in their chappows is, in the first instance, terribly severe. A very recent traveller* in these countries relates that he sometimes met them returning from their chappows, and dragging their captives after their horses by a cord, at the end of which was a hook so inserted through the flesh as to embrace the collar-bone. This savage process, however, seems to be only resorted to in order to subdue the spirits of the more refractory prisoners, who are thus made to keep up on foot with the beast

to which they are attached until quite exhausted, when they are placed on the back of a horse. Capt. Christie's account, in Pottinger's Travels, of the manner in which the Beloochees treat the victims of their chappows, so well illustrates the subject, that we shall make use of his statement. When first taken, the prisoners regard themselves as the most unfortunate beings in existence; and, indeed, the treatment they then experience is of the harshest and most discouraging description. They are blindfolded, and tied on camels, and in that manner transported to prevent the possibility of their knowing how to return; and, to deter them from even wishing to revisit their native soil, the hair of the women and the beards of the men are cut off, and the roots totally destroyed by a preparation of quick-lime. But they are soon reconciled to their fate, and become attached and faithful servants. Capt. Christie expressed his surprise to the sirdar of Nooshky that his numerous slaves should work so diligently without any person to oversee them. "Why not?" he replied, "they are clothed, fed, and treated like the other members of my family; and if they do not labour, they are well aware that bread will be scarce, and that they must suffer as well as ourselves. It is their interest to produce plenty, for they know that they get their share of whatever falls to my lot." Capt. Christie assented to the justness of his observation, but added that he should have thought them likely to run away. "Nothing of the kind!" replied the old sirdar, "they are too wise to attempt it. In the first place, they do not know the way to their own country; and even admitting that they did, and that they wished to return, they are much happier here, and have less to care for. Were they at home, they must toil fully as hard as they do now; besides which, they would have to think of their clothes, their houses, and their food. Now they look to me for all their necessities; and, in short, that you may judge of their feelings, I need only inform you that the greatest punishment we can inflict upon them is to send them about their business." We think it very likely that the slaves themselves would not have spoken in a tone very different from that of their master. Slavery, in Mahomedan countries, as compared with the general condition of the people, is far from presenting a disadvantageous contrast. It is there but a name, and a name of which no man is or need be ashamed.

Persons of such apparent consideration as to warrant the captors in expecting a good ransom are, until that expectation is relinquished, more favourably treated, in the first instance and afterwards, than those who are designed for permanent slavery. About two years since, the uncle of the king of Oude was taken prisoner by the Turkomans while proceeding on a pilgrimage to Mushed. Notwithstanding the plainness of his appearance, they discovered, from the softness and clearness of his hands and feet, that he was not accustomed to work or exposure, and therefore reserved him for ransom. He used to speak of his residence among them without indignation or complaint. His master, indeed, was somewhat of a churl; but his mistress was very kind. They obtained no good thing of which he did not get a share; and although they would not allow him to be idle, he was put only to easy work, such as disengaging cotton from the pods, mending clothes, and, occasionally, washing. His superiority in the latter accomplishment is within our personal knowledge; and he confessed that he was proud to know something which could render him useful among the Turkomans.

In concluding this subject, it may be remarked, that we shall probably embrace a future opportunity of following up some parts of the above statement by an account of the position which a slave occupies in Mahomedan countries.

* Lieut. Burnes. The writer of this article met that gentleman in Persia, and feels pleasure in recording that to his skill, experience, and kindness, he is probably indebted for the preservation of a life which he hopes to render useful.

PEAK CAVERN.



[Entrance to the Peak Cavern.]

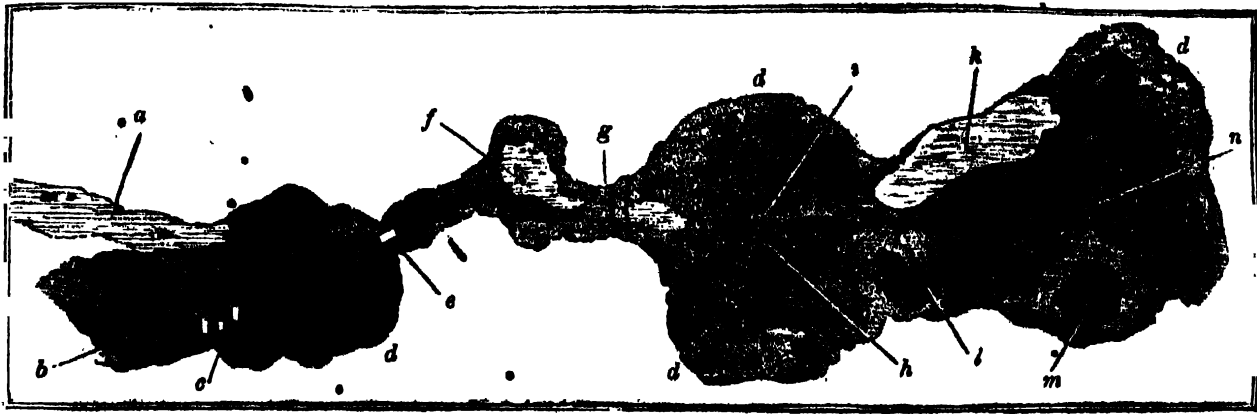
THERE is no other county in England which affords such a variety of scenery as Derbyshire, or which presents so striking a contrast in geographical features as that which its northern and southern portions exhibit. The southern part of Derbyshire is a pleasant, fertile district, not distinguished in its general aspect from the other midland counties; but the northern abounds with hill and dale, and the scenery is often romantic and sublime. The country gradually rises for about fifteen miles to the northward, and afterwards begins to assume that mountainous appearance which it continues to possess to the extremity. A chain of hills arises, which extends to the borders of Scotland. These hills are at first of small elevation; but, being in their progress piled on one another, they form very elevated ground in the tract called the High Peak. The mountains of the Peak, although inferior to those of Cumberland, constitute the loftiest and most considerable range in the midland regions of the kingdom. The highest points are Axe-edge, which is 2100 feet above the level of Derby, and Kinder-scout, which is 3000 feet higher than the level of Buxton. About 700 eminences, and 50 rocky caverns, dells, and valleys, have been enumerated in the region of the Peak. From the caverns which, with the other local peculiarities, have been so much celebrated under the title of the "Wonders of the Peak," we have selected the "Peak Cavern," frequently called "Devil's Cave," and, still more vulgarly, "Auld Horney," for particular description.

This cavern is situated about 100 yards from the village of Castleton, in a dale of the same name. This dale is about six miles in length, and, in some parts, two miles in breadth, and is calculated to lie 1000 feet below the level of the surrounding country. It has been much celebrated for the beauty of its scenery; not, perhaps, that it is in this respect superior to many

other of the picturesque valleys in Derbyshire, but the lovely contrast its luxuriance affords to the sterile, bleak, and desolate mountain-tracts previously traversed, disposes the mind to exaggerate its just claims to admiration.

The cavern itself is one of those magnificent and extraordinary works of Nature which at all times excite the admiration and wonder of the spectator. It would be difficult to imagine a scene more august than that which the entrance or vestibule of the cave presents. On each side the huge grey rocks rise almost perpendicularly to the height of nearly 300 feet, having on the left the rivulet which issues from the cavern, and foams along over crags and broken masses of limestone. The mouth of the cave is formed by a vast canopy of rock which assumes the form of a depressed arch nearly regular in its structure, and which extends in width 120 feet, in height 42, and above 90 in receding depth. This gloomy recess is inhabited by some poor people who subsist by making packthreads, and by selling candles and officiating as guides to travellers. Their rude huts and twine-making machines, as exhibited in the wood-cut (and c in the plan), produce a singular effect in combination with the natural features of the scene.

After penetrating about thirty yards into this recess, the roof becomes lower, and a gentle descent conducts by a detached rock to the immediate entrance of the interior hollow, which is closed by a door (c) kept locked by the guides. At this point, the light of day, which had gradually softened into the obscurity of twilight, totally disappears, and torches are employed to illuminate the further progress through the darkness of the cavern. The passage then becomes low and confined, and the explorer is obliged to proceed twenty or thirty yards in a stooping posture, when he comes to



[Plan of the Peak Cavern.]

- a. Stream which loses itself among the rocks.
 b. Entrance to the cavern.
 c. Cottages.
 d. Broken rocks fallen from the roof and sides.
 e. Door leading from the outer to the second cavern.

- f. Boat in the first water, which conveys one person under the arch, g.
 h. Great Cavern.
 i. Steps cut in the sand to descend to the second water, A.
 l. Entrance to the passage leading to the "chancel," m.
 m. Third cavern, 400 yards from the entrance.

another spacious opening, whence a path conducts to the margin of a small lake, locally called "First Water" (f), which is about fourteen yards in length, but has not more than three or four feet of depth. There is a small boat, partly filled with straw, on which the visiter lies down, and is conveyed into the interior of the cavern under a massive arch of rock (g), which is about five yards through, and in one place descends to within eighteen or twenty inches of the water. Beyond the lake, a spacious vacuity, 220 feet in length, 200 feet broad, and, in some parts, 120 feet high, opens in the bosom of the rocks, but the absence of light precludes the spectator from seeing either the sides or roof of this great cavern. It is traversed by a path, consisting partly of steps cut in the sand (i), conducting from the first to the "Second Water" (k). Through this travellers are generally carried on the backs of the guides. Near the termination of this passage, before arriving at the water, there is a projecting pile of rocks popularly called "Roger Rain's House," on account of the incessant fall of water from the crevices of the rocks. A little beyond this spot is the entrance (at l) of another hollow called the "Chancel" (m). At this point the rocks appear broken and dislocated, and the sides and prominent parts of the cavity are incrustated with large masses of stalactite. In the "Chancel," the stranger is much surprised and impressed by hearing the death-like stillness of the place suddenly interrupted by a burst of vocal music from the upper regions of the cavern. The tones are wild and discordant, but heard in such a place, and under such circumstances, produce a powerful impression. At the conclusion of the performance, the singers display their torches, and eight or ten women and children—the inhabitants of the huts at the entrance—appear, ranged in a hollow of the rock, about fifty or sixty feet from the ground, to which they gain access by clambering up a steep ascent which commences in the opening at l. From the "Chancel" the path leads onward to the "Devil's Cellar," and thence a gradual but somewhat rapid descent of about 150 feet conducts to a spot called the "Half-way House." Neither of these places claim particular notice. Farther on, the way proceeds, between three natural arches, pretty regularly formed, to another vast cavity which is denominated "Great Tom of Lincoln," from its resemblance to the form of a bell. A very pleasing effect is produced when this place is illuminated by a strong light. The arrangement of the rocks, the spiracles in the roof, and the flowing stream, unite to form a scene of no common interest. The distance from this spot to the termination of the entire hollow

is not considerable. The vault gradually descends, the passage contracts, and at last nearly closes, leaving only sufficient room for the passage of the water, which appears to have a communication with the distant mines of the Peak Forest.

The entire length of this wonderful excavation is about 750 yards, and its depth 207 yards. It is wholly formed of limestone strata, which abound in marine exuviae, and occasionally exhibit an intermixture of chert. Some communications, with other fissures, open from different parts of the cavern, but none of them are comparable to it in extent or appearance. In general, the access to the cavern is easy; but in very wet weather it cannot be explored, as it is then nearly filled with water, which rises to a considerable height even at the entrance. In the inner part of the cavern a singular effect is produced by the explosion of a small quantity of gunpowder, when inserted in a crevice of the rock. The report seems to roll along the roof and sides like a heavy and continuous peal of overwhelming thunder.

Progress of Truth.—The truth-haters of every future generation will call the truth-haters of the preceding ages by their true names; for even these the stream of time carries onward. In fine, truth, considered in itself and in the effects natural to it, may be conceived as a gentle spring or water source, warm from the genial earth, and breathing up into the snow-drift that is piled over and around its outlet. It turns the obstacle into its own form and character, and as it makes its way increases its stream; and should it be arrested in its course by a chilling season, it suffers delay, not loss, and waits only for a change in the wind to awaken, and again roll onward.—Coleridge.

Perseverance.—There was no feature more remarkable in the character of Timour* than his extraordinary perseverance. No difficulties ever led him to recede from what he had once undertaken; and he often persisted in his efforts under circumstances which led all around him to despair. On such occasions he used to relate to his friends an anecdote of his early life. "I once," he said, "was forced to take shelter from my enemies in a ruined building, where I sat alone many hours. Desiring to divert my mind from my hopeless condition, I fixed my eyes on an ant, that was carrying a grain of corn larger than itself up a high wall. I numbered the efforts it made to accomplish this object. The grain fell sixty-nine times to the ground; but the insect persevered, and the seventieth time it reached the top. This sight gave me courage at the moment, and I never forgot the lesson."—Malcolm's *Peria*.

* The great Asiatic conqueror commonly known by the name of Tamerlane.

THE BALSA.

THIS ingenious contrivance, like the catamarans and massulah boats of Madras, is used for landing with safety through a heavy surf. The "Balsa," which is especially employed on the coasts of South America, both East and West, exhibits a remarkable instance of the ingenuity of the human mind in overcoming those obstacles which nature has raised to the prosecution of its pursuits. It is formed of two seal skins sewed up so as to form large bags from seven to nine feet in length; these, being covered with a bituminous substance so as to be perfectly air-tight, are inflated by flexible tubes and secured by ligatures; the pipe is of sufficient length to reach the mouth of the conductor of this frail bark, who is thus enabled occasionally to replenish the bladders with air, should any have escaped. The two are securely fastened together at one end, which forms the prow of the vessel; the other ends are spread about four feet apart by a small plank, and the raft completed with small sticks covered over with matting. The manager of the balsa sits well forward, with his passengers or goods close behind him, and armed with a double-bladed paddle approaches the back of the surf, waiting for the highest wave, and contrives to keep his balsa on the top of it with her bow towards the shore till she is thrown up on the beach to the very extent that the surf reaches, and the man immediately jumps off to secure his balsa from returning with the sea, when the passengers land without wetting the soles of their shoes. The balsa will easily carry three passengers besides the person who guides it, and is employed in landing the cargoes from merchant vessels where the violence of the surf, particularly on the shores of the Pacific, prevents the possibility of European boats passing through it without great danger. Along the coast of Peru, which is almost entirely devoid of harbours, it is the only vessel used for these purposes, and by such frail means large bags of dollars and doubloons, and bars of silver and gold, are shipped off, without the least apprehension of their safe conveyance. Balsa, which is a Spanish word, means, in a nautical sense, float or raft; the above description applies only to that kind used at sea, but there is another balsa, more simple and more frail, used in crossing rivers, an account of which is thus given by Mr. Temple in his humorous and entertaining 'Travels in Peru':—"Take a dried bullock's hide, pinch up each of the four corners, put a stitch with a thorn to keep those corners together, and your boat is made. For use, place it upon the water bottom downwards, then put one foot immediately in the centre, and let the other follow with the most delicate caution; you are now to shrink downwards, contracting your body precisely in the manner in which, probably, in your childhood, you have pressed a friar into a snuff-box. When crouched down in the bottom, sundry articles are handed in and ingeniously deposited round you, until the balsa sinks to about an inch or an inch and a half; it is then considered sufficiently laden. A naked *peone* (guide) now plunges into the stream, and, taking hold of one corner of the balsa, a *peone* on the shore imparts a gentle impulse to your tottering bark, while the person in the water, keeping hold of the corner with one hand, strikes out with the other, and swims away with you to the opposite bank." The work from which the above extract is made, is written in so facetious and lively a strain, at the same time giving such faithful and characteristic sketches of the customs of the country, that his readers cannot fail to receive amusement as well as instruction.

Goitres.—The inhabitants of the Carpathian mountains are afflicted with the same glandular accretion which is observed in the Alps; its appearance is disgusting, and is so far from being considered as a beauty by the natives, that the dress of the women is purposely calculated to conceal the neck and throat. In its excess it causes all that is human, as well in the mind as the body, of those who are afflicted with it to disappear. They are perfect idiots. I remember the uneasy sensations I experienced, when, after a long and fatiguing journey, we reached our resting-place in a village among the mountains. The inhabitants of a dark cottage were dislodged to make room for us, and I had ordered the chamber which we were to occupy to be cleared and swept; on approaching the fire, I observed a person sitting among the embers on the hearth. I was peevish, if not angry with the peasant, who immediately drew from the chimney-corner by the nape of the

neck a naked *mummy*, for so it appeared to me: the body wasted to supply the enormous excrescence on the neck, the spindle shanks shrunk up, the long arms hanging down the sides, and showing no sign of life except a vacant and frightful stare. I confess I felt much horror, and was stung with remorse at depriving the poor creature of the only comforts which it seemed capable of enjoying. The quantity of morass and stagnant waters in the valleys and meadows, the thick and impenetrable forests, the humidity natural to so much uncultivated land, which is constantly covered with the decayed and putrefying vegetables of the preceding year, are probably the cause of the defects which exist in the atmosphere of these climates.—*Thornton's State of Turkey.*

Praise.—Praise in the beginning is agreeable enough, and we receive it as a favour; but when it comes in great quantities, we regard it only as a debt, which nothing but merit could extort.—*Goldsmith.*

Passing the Line.—The ordeal to which novices are now subjected on crossing the Tropic of Cancer, or the Equator, has formed so prominent a feature in the many nautical novels which have of late years been before the public, that there must be few unacquainted with its nature. Though the ceremony has been greatly changed, as well as the purpose to which fines are applied, it is by no means a practice of modern date, as appears by the following extract from Merolla's 'Voyage to Congo' in the year 1682:—"A sort of court is erected among them, by consent of the Commander; then two judges dressed accordingly sit at table, where they take full cognizance of all such as have not yet passed the line; and then, as if it were a great crime, they mulct them according to their quality; such as are not ready to pay their fines, or at least willing to offer something, are seized in a trice, and by a rope round their middles hauled up to the main-yard arm, whence they are let thrice successively into the sea. From this punishment or a fine none are exempt, and, it is said, with the latter they maintain a church."

INDICATIONS OF SPRING.

THE following indications of Spring were observed by the late Robert Marsham, Esq., at Stratton in Norfolk, and were read before the Royal Society, April 2. 1789. Mr. Marsham died in 1797, at the age of 90. They may be interesting to some of our readers.

Indications.	Earliest.	Latest.	Greatest Difference.	Medium.	Observed in
Thrush sings.....	Dec. 4, 1723	Feb. 13, 1766	81 days	Jan. 14, 1747	56 years
Snow-drop appears.....	Jan. 24, 1723	— 10, 1735	43	— 15, 1750	53
Ring-dove coo.....	Jan. 27, 1723	March 20, 1761	83	— 22, 1750	47
Turnip flowers.....	Jan. 10, 1726	June 19, 1730	129	April 13, 1743	55
Yellow butterfly appears.....	Jan. 14, 1726	April 17, 1733	93	March 31, 1744	53
Rooks build.....	Feb. 2, 1726	April 14, 1737	70	Feb. 19, 1738	57
Hawthorn leaf.....	— 31, 1730	April 22, 1734	73	March 30, 1745	52
Frogs and toads croak.....	— 31, 1730	May 4, 1771	72	— 30, 1774	57
Birch leaf.....	— 23, 1750	— 4, 1771	71	— 6, 1773	47
Sycamore leaf.....	— 23, 1750	— 6, 1784	63	— 9, 1789	40
Elm leaf.....	— 5, 1779	— 31, 1771	57	— 23, 1783	34
Mountain ash leaf.....	— 9, 1794	— 2, 1771	61	— 12, 1783	34
Horn-beam leaf.....	— 10, 1763	— 2, 1771	52	— 5, 1778	30
Maple leaf.....	— 15, 1794	— 7, 1771	53	— 13, 1786	33
Wood-Anenone blows.....	— 16, 1790	April 6, 1784	57	— 14, 1789	43
Linne leaf.....	— 19, 1794	May 7, 1766	49	— 21, 1776	36
Young rook.....	— 20, 1747	May 12, 1770	45	— 21, 1777	34
Cherit leaf.....	— 23, 1794	May 26, 1737	57	— 26, 1757	38
Swallows appear.....	— 26, 1786	April 26, 1739	54	— 28, 1785	33
Oak leaf.....	— 28, 1779	May 20, 1772	54	— 28, 1784	39
Ash leaf.....	— 5, 1779	— 10, 1771	36	— 23, 1789	51
Beech leaf.....	— 5, 1779	— 19, 1792	43	— 23, 1784	39
Nightingale sings.....	— 5, 1753	— 7, 1767	29	— 12, 1744	59
Cuckoo sings.....	— 5, 1753	— 2, 1759	50	— 12, 1744	59
Hawthorn flowers.....	— 23, 1750	— 26, 1733	53	— 23, 1760	46
Churn-owl sings.....	— 23, 1781	— 26, 1733	53	— 23, 1760	46

MALTA.

GIBRALTAR has not inaptly been termed the key of the Mediterranean, and following up the simile, Malta may be compared to the spring of the lock, possessing advantages from its strength and situation which cannot be too highly appreciated by England. There is, however, this difference in the two places, that while the former has had Nature for the chief engineer, the latter is indebted almost entirely to art for its almost equal impregnability. A detailed account of its extensive lines of fortification would exceed our present intention, which is to confine ourselves to those points more immediately connected with the Grand Port of Valetta, of which the above is a sketch.

The approach to Valetta, situated near the eastern point of the island, is highly picturesque and interesting; the fortifications, close to which vessels must pass, seem sufficient to annihilate the most powerful naval force that could be sent against it. There are two harbours separated from each other by a narrow neck of land; but the northern and smaller of the two is solely appropriated to the purposes of quarantine, a penance which is strictly enforced, as the inhabitants have already had an awful lesson in the dreadful plague with which they were visited in 1813.

The southern, or Grand Port, is large, safe, and commodious, running up, in a south-west direction, a mile and three-quarters; the breadth at the entrance being less than 500 yards. It possesses great advantages as a harbour, being free from danger, and the shore everywhere so bold, that a line-of-battle ship may lie close to it and take in a supply of water from pipes laid down in several places, or her provisions, without the aid of boats. The northern shore is but slightly varied from the straight line, but to the southward the coast is deeply indented by three inlets: the first, immediately on passing the point of entrance, called Bighi Bay, where the French had commenced a palace for Napoleon, which, after remaining thirty years in an unfinished state, has at last been converted into a Naval Hospital; secondly, a narrow creek, called Porto della Galera, or Galley Port, where the galleys of the Knights were laid up; and, lastly, Porto della Sanglea. The two last are perfectly land-locked.

On the Valetta side the shore is one continued line of wharfs, on which stand the Pratique-office, the Custom-house, the Fish-market, with ranges of storehouses both public and private; and along these wharfs merchant vessels generally lie to discharge and load their cargoes. The Galley Port is principally appropriated to the establishments connected with the Naval Arsenal, whose storehouses and residences of the officers occupy the greater part of its shores. The Dockyard is at the head of the creek, the Victualling-office and Cooperage along its eastern shore; and although its greatest breadth does not exceed 250 yards, the depth of water is sufficient to admit of two-decked ships lying at the Dockyard to undergo their necessary repairs: the western side is resorted to by merchant vessels when making a long stay. The shores of Port Sanglea are chiefly occupied by private yards for building and repairing merchant vessels; beyond which, up to the head of the harbour, the country is open.

The entrance to the harbour is defended by Forts Ricasoli on the east and St. Elmo on the west, whose walls rise almost immediately from the sea-shore, and by Fort St. Angelo, a quadruple battery, the lowest tier of which is nearly level with the water. This fort stands at the extremity of the tongue which separates the Galley Port from Bighi Bay, and completely flanks the entrance. The next point, separating the Galley Port from Port Sanglea, is also protected by a battery, besides which a line of fortification surrounds the town

on both sides the harbour, with bastions, where most conducive to the general defence, and, towards the land the utmost ingenuity of art has been lavished to render the town impregnable.

The Maltese are an industrious and active though by no means a fine race of men; the poverty of their living superinduces diseases, among which ophthalmic complaints are the most prevailing. The streets of Valletta are thronged with a squalid set of the most persecuting beggars, whose supplications for "carità" are as incessant, and more annoying to the ear, even than the ringing of the bells.

The boats, which are very numerous, afford a striking and pleasing feature in the general appearance of the place: though seemingly very clumsy, they are rowed with great velocity by the natives, who stand up and push at the oar; they are safe and commodious, always kept remarkably clean, and painted with the gayest colours, having an eye on each side of the stern; they are also provided with a white cotton awning and curtains for fine weather, and a more substantial covering for rain; they are well regulated, and their hire is very moderate. The boat-races, which are frequent, offer a very lively and animated scene. The water is beautifully clear, and generally crowded with boys bathing, many of whom spend nearly as much time in that element as on shore; the Maltese are universally good swimmers and divers; and the numerous fast-days of the Catholic church give employment to many in supplying the market with fish.

Malta is very subject to the oppressive and enervating "scirocco," or south-east wind; but the "gregali," or north-east wind, is that which blows with the greatest fury, and, blowing directly into the harbour, causes a sea across the entrance that would be dangerous to small vessels, and cuts off the communication across from Valetta to Vittoriosa. The surf there beats against the walls of the fortifications with impetuous violence; it has even at times removed the guns from the embrasures of Fort Ricasoli,—and the spray has been carried over the top of the palace.

The island produces some excellent fruits, among which are the oranges and melons for which it is particularly celebrated, but the market is chiefly supplied from Sicily, a number of large boats, called "speroneras," being constantly employed running to and fro. Provisions are cheap and abundant, but butchers' meat is indifferent. There is a lighthouse in Fort St. Elmo, occupying a very advantageous situation.

Valetta itself is built on the narrow neck of land which divides the two ports, occupying an area of 560 acres. The first stone was laid in 1566 by the famous Grand Master, John de la Valette, after having, the year before, obliged the Turks to abandon a protracted and vigorous siege against the Order, who then inhabited the opposite shores of the island called Burmola and Isola. The new city, however, soon surpassed the other parts in population, buildings, and commercial importance, and now gives name to the whole, which properly consists of five distinct quarters, or towns, viz., on the north side of the port, Valetta and Floriana, and on the south side, Vittoriosa, Burmola and Isola;—the three latter enclosed in an extensive line of fortification called the Cotonera.

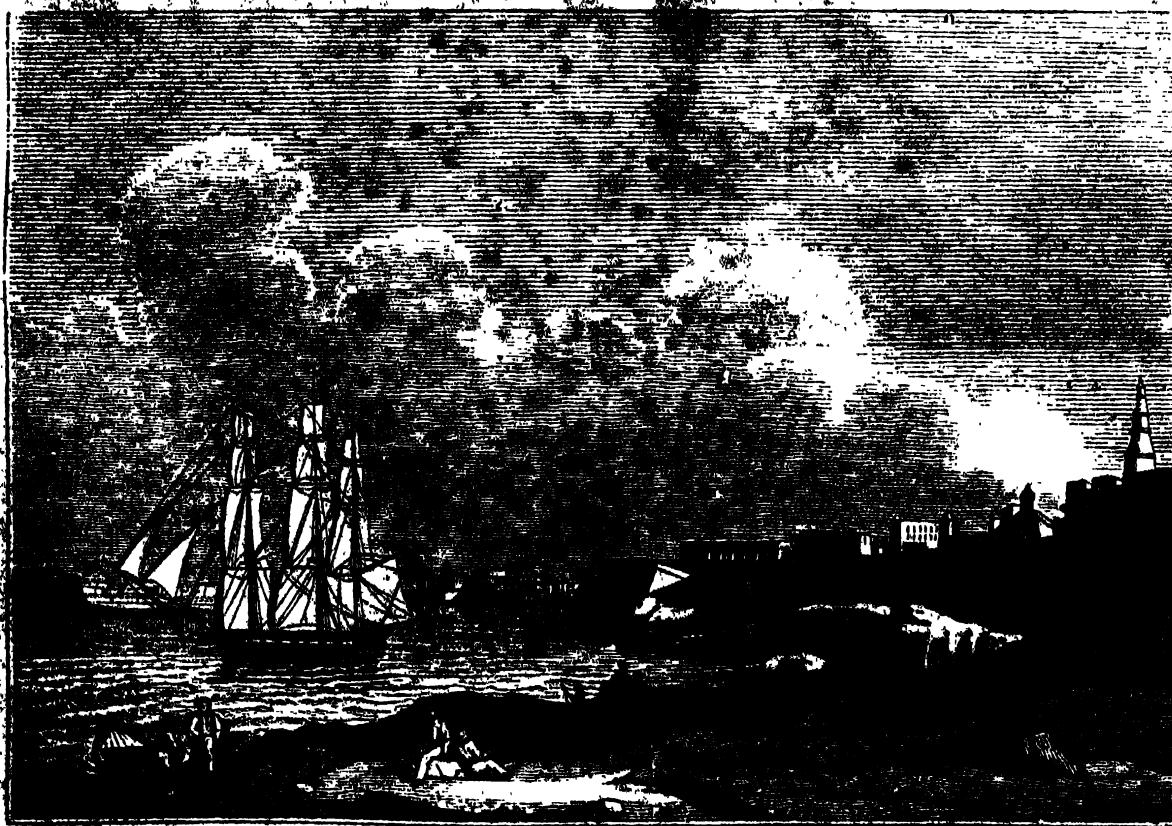
The streets are at right angles to each other; and, being built on an elevation inclining on either side, most of the transverse streets are necessarily constructed with flights of steps, which Lord Byron has justly anathematized as "cursed streets of stairs," an expression that might be drawn from the most pious while toiling up them on a sultry summer's day. The houses are low, never exceeding a second story; built of the stone of the island, and are provided with balconies to most of the windows, and flat terraced roofs, which

in commanding situations, furnish an agreeable resort in the cool of the day,—also to catch the rain, which is conducted by pipes to a cistern, with which every house is provided. There are likewise public fountains, the source of whose supply is in the southern part of the island, and conveyed to the city by means of an aqueduct. The streets are generally wide and well-paved, with a broad footpath on each side; but the glare caused by the reflexion of the sun on the sandstone is so intolerably distressing to the eyes as to render walking out during the middle of the day almost impossible.

The Palace, at present occupied by the governor, was formerly the residence of the Grand Master of the Order; it is a large and handsome quadrangular building, with a spacious courtyard in the centre, it stands about the middle and highest part of the town, and on it is the signal station. It contains some beautiful specimens of tapestry, and paintings of the Grand Masters, and has a very extensive armoury attached to it, with various specimens of armour and weapons. Before this palace is an open space called Piazza St. Giorgio, used as a military parade, and enlivened in the evenings by one of the regimental bands. Near this is the cathedral of St. John, the tutelary saint of the Order,—a vast, though externally a remarkably plain and unostentatious edifice; within is a spacious oblong area, and on each side are aisles, with particular altars or chapels for the different nations composing the Order, adorned with paintings and sculpture according to the zeal or riches of the "Tongue," as it was technically called, to which it belonged. The whole pavement is, however, richly emblazoned with the heraldic bearings of the knights in mosaic. The

appointments of this cathedral suffered greatly during the temporary possession of the island by the French;—a handsome silver railing round one of the altars escaped their sacrilegious rapacity only by being painted. The vaults below the cathedral are also curious. Besides St. John, Valetta abounds in churches, the incessant ringing of whose bells are among the greatest nuisances of the place. Although the island has been in possession of the English since 1800, no Protestant church has been built; a small chapel in the Palace, and one at the Dockyard, being the only places of worship of the Established Church. The next objects are the hotels, or inns of the different nations, where they held their meetings: these still retain their distinguishing appellations, though now variously applied,—some as quarters for officers of the garrison, some to private individuals, and one, having the only large room floored with plank in the town, has become the scene of public assemblies. Valetta has its banks and exchanges, and there are also public hospitals, a very good theatre, and coffee-houses fitted up with marble, where the visitor may enjoy that luxury in a hot climate, as brought over from Etna. There are two libraries, one which belonged to the Knights, comprising about 40,000 volumes of Greek, Latin, French, and Italian works; the other a subscription library, established by the English residents.

Valetta, on the whole, is a gay and interesting place, not only from its former eventful history and chivalrous masters, but from its present state. Its commercial activity, its political importance, and its central situation in the Mediterranean, all conduce to make it the resort of a great variety of nations, ranks, and characters from all quarters of the globe.



[Malta.]

•• The Office of the Society for the Diffusion of Useful Knowledge is at 22, Lincoln's Inn Fields.
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rhinoceros. The principal difference between them is, that the African variety has an additional horn of a smaller size situated nearer the forehead, and the skin is not thrown into the folds so remarkably as in the Asiatic variety. Mr. Sparrman dissected a two-horned rhinoceros, not of the largest size, though it measured seven feet high, eleven feet and a half long, and twelve feet in the girth. He observed that the viscera greatly resembled those of the horse; the stomach, however, resembled rather that of the hog, or man. It had no gall bladder, in this again resembling the horse. There were no fore-teeth, and the tongue was perfectly soft and smooth. The kidneys were a foot and a half in diameter; the milt was four feet long and one foot broad; the heart was a foot and a half long, and nearly as broad; the skin was an inch and a half thick on the back, and still thicker, though less compact, on the sides; and the anterior horn, which is the longest, was a foot long and five inches in diameter at the base; the shape was in both horns conical, with the tips inclining backward. It is remarkable, that the two-horned variety has never in modern times been brought to Europe; yet it was much better known than the Asiatic variety to the ancients. It is generally represented with two horns in the coins and sculptures of the Romans. The one-horned variety seems to have been earlier known than the other, though it did not afterwards become such an object of familiar knowledge to the Romans. It is probably, also, the Indian one with one horn, mentioned by Aristotle. Pompey introduced it into the games of the Roman circus; but, from the time of the fall of the Roman empire, it was so completely lost sight of, that, prior to the 16th century, naturalists were of opinion that it had never existed, or that if so, it was extinct. When, however, the Portuguese doubled the Cape of Good Hope, and opened the way to India, the one-horned variety again became known, and specimens were brought to Europe; the first was in the year 1518; but the first that appeared in England was not until 1684. They have never been very common, however, as objects of curiosity in Europe. The one represented in our woodcut, which is copied from the splendid *Histoire Naturelle des Mammifères*, by Geoffroy St. Hilaire and F. Cuvier, drew much attention in 1815 at Paris, to which place it was taken after having formed part of a menagerie in this country, to which it had been brought from India.

This rhinoceros was still young, and habitually indicated an exceedingly mild disposition, being very obedient to his keeper, whose caresses he seemed to receive with much satisfaction. Nevertheless he was subject to violent fits of passion, and at such times it was dangerous to approach him. He then made prodigious efforts to break his chains and escape from his bondage; but the offer of bread and fruits seldom inducing his most terrible passions.

Those persons found the most favour with him who ministered the most to his voracious appetite; and when they appeared, he exhibited his satisfaction and expectation by opening his mouth and extending to them his long upper lip. The narrow limits of the cage in which he was shut up, did not allow him to manifest much of intelligence. The great object of the keeper was to make him forget his strength or forgo its exercise. Hence, nothing calculated to awaken his consciousness of power was required from him. To open his mouth, to move his head to the right or left, to lift his leg, &c., were the only acts by which he was requested to testify his obedience. His great strength, and the fear that in one of his passions he might break his cage, ensured to him the most mild and soothing treatment, and he was scrupulously rewarded for the least thing he was required to do. In spite of such an unfavourable situation, the distinction

he made of persons, and the great attention he paid to everything that passed around, demonstrated that, in more favourable circumstances, his intelligence might have been more strikingly manifested.

The young rhinoceros in the Surrey Zoological Gardens indicates much mildness of disposition, and he appears attached to two goats which came to England in the same ship with him. His favourite food is rice and sugar, of which he consumes a great quantity.

MUSIC.

Do the English like music? This is a question to which an answer cannot be given in a word, and the various remarks springing out of it will not fall under any title less general than the one we have chosen. Which we ask whether the English like music, we do not mean the small proportion of the population which has learned to read music, and has, more or less, the advantage of studying good models; but the multitude of all ranks, whose acquirements extend no farther than to draw a distinction between "pretty tunes" and "ugly tunes," and who fall under the two great subdivisions of those who would know 'God save the King' if it were sung without words, and those who would not. We must not judge of these by the state of the public orchestras, or of the musical press. In large towns it is true that the first is some slight indication of popular taste, but not much, for the following reasons.

First, the excitement of a popular assembly, the lights, acting, dancing, &c., render the music palatable, and even interesting, to many who would otherwise care little about it. We do not exaggerate when we say that dancing alone is to many the means of making music intelligible. Even the connoisseur beats time when he wishes to put himself completely in possession of what is going on; dancing is beating time with expression as well as regularity, and the sense of both may be, and is, aided by the eye, when the ear is dull from want of practice. Next, it must be observed that there are several distinct qualities of an orchestra from which pleasure may be derived, and that it does not follow that one person writes the feeling of all. The mere tone of some of the instruments is delightful, and the succession of different and varied species of sound is a source of pleasure which exists independently of the subject of performance. When we see a person who is pleased with the horn or the musical glasses, but cares little for a pianoforte or a quartet of stringed instruments, we may be very sure that he likes one class of musical tones and nothing more. We might also instance regularly the alternation of loud and soft, the swell or crescendo, &c., all of which afford satisfaction to many who neither know nor care whether the instruments are in tune or not.

Composers themselves are sometimes aware of the feelings being guided by other considerations than melody and harmony. The following writers are constant self-repeaters, Corelli, Handel, and Rossini. But that which in the first is "tiring, good as it is, and in the second would be so, were it not so exquisitely good, is little felt in the third, on account of the peculiarly varied management of the instruments. It must be observed that the orchestra is now much larger than in the time of Handel. Rossini on the pianoforte has not one-tenth part so many ideas as in the orchestra.

An eminent pianist informed us that he was so liable to be taken in by the glitter of a new and excellently toned pianoforte which he possessed, that he never played his own compositions upon it, or used it in arranging his ideas, till he had first submitted them to an old and beaten instrument on which he had taken his first lessons, the keys of which had been worn by

his fingers, more than ever were the stones of a church by the knees of pilgrims, till they were actually fluted. This is a sort of counterpart to the story of Molière's old woman, and the result was the same in both cases,—the old woman was always right.

Haydn had Prince Esterházy's band always at his disposal. He had but to ring a bell and the musicians assembled. We very much doubt whether his works were the better for it in substance, though no doubt his instrumentation, as it is sometimes called, was greatly improved by it.

On these grounds we do not feel certain that love of the orchestra is such a proof of love of music as may be generally supposed. And certainly with those who live in the country it can be none at all, for no other reasons. Neither is the state of the musical taste, because by it we can only judge of those who have musical education.

It might, perhaps, be urged that national music is the proper criterion. But it must be recollected that the two countries which have produced the best composers, and where knowledge of music most obtains,—Germany and Italy,—have very little, if any, national music. The French have still less; the English hardly any. The Scotch, Irish, and Swiss, have a great deal. We also, we believe, have the Spaniards. With the exception of 'God save the King,' and 'Rule Britannia,' we doubt if there is a national air in England—that is, known throughout the whole country to every one who can distinguish one note from another. There are, however, some airs, and which, perhaps, may claim the appellation.

To what sort of music then must we go, by which to try the taste and the ear of the great mass of our countrymen? It must clearly be to something which is heard by all, or nearly all, in the country. At present, we can only recollect the devotional music in places of religious worship, and the performances of the itinerant minstrels. These, which we believe to be the only attainable tests, are certainly sufficient, at least so far as this, that no nation with a cultivated ear would suffer them to be very bad. We begin with the first.

Devotional music, for common purposes, is very different in the churches established by law and those of the dissenters. The latter appear to dislike the introduction of any thing but the voice, and seldom admit more than a violoncello, or some one simple instrument. In the greater number of cases no instrument is used except that known by the name of the pitch-pipe, which sounds the key-note at the commencement. But, generally speaking, the individual members of dissenting congregations take a greater interest in the music, more than those of the church. Many have organised volunteer corps of singers, consisting of all such as choose to associate themselves in such a capacity. And as it must be supposed that none would choose to take trouble for such a purpose who have not some little taste for the matter, the consequence is that in dissenting meeting-houses in general the singing is very fair. That is, time, tune, and the several parts—usually not more than four—are tolerably well preserved. And we doubt not there are many places in which the performance is, in these respects, much above mediocrity. Many books of psalm-tunes are written expressly for their use, and we now come to the sort of music which is chosen.

When many voices are to join in unison, supported only by a small number in the under parts, good taste points out that the melody should be excessively simple, and the harmony equally so, with a strong, nervous, and almost rude character,—not dwelling on minutiae, or any very close degree of filling up. All these conditions are well fulfilled in many of the old chants, and psalm-tunes. We may instance particularly the 'Old

Hundredth Psalm,' and, though not so perfect in our opinion, the 'Evening Hymn.' Of these, and several others, it is not too much to say that they are magnificent. But, unfortunately for the art, the composers of this sort of music have left the good models, and have produced complex, artificial, trashy substitutes, full of false attempts at variety, and unskilful use of contrast. In the poverty of invention common airs have been sometimes pressed into the service, the harmony of which is that of the opera, not of the church. Nor it must be observed that sacred music has always had combinations peculiar to itself, which we know not, though we can feel, why, have been considered as solemn in their character. Sometimes an air of an oratorio has been adapted, by some mere mechanist, to the long, short, or common metre, as the case may be, of the psalm versions of the psalms. We remember a curious instance, in which some parts of Handel's 'I know that my Redeemer liveth' have been torn out from the rest to form three lines of a psalm-tune, the fourth of which has been added by the compiler. Thus much, then, we conceive we can surmise from the state of music among the dissenters, that though there is no incurable defect in the national ear for simple time and tune, there is not as yet sufficient cultivation to know that which is true and just taste from the creations of diseased fancy.

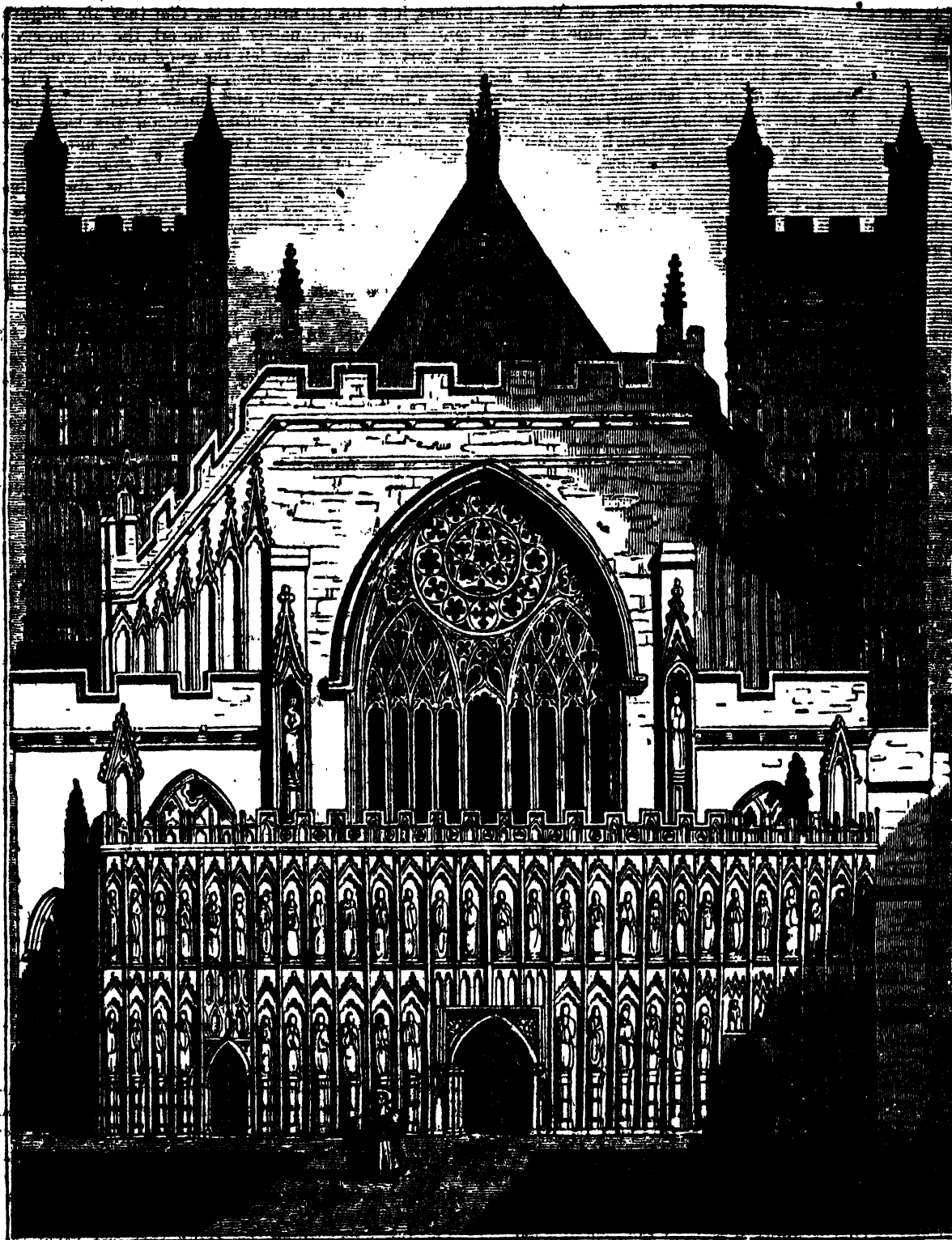
The churches of the established persuasion may be divided into those which have organs and those which have not, the latter being mostly in the country. The former are under the guidance of the organist, of whom usually nothing worse can be said than that it were to be wished he would try his voluntaries upon the old piano already alluded to, before he pronounced them worth playing. Now, with regard to the congregations in the dissenting chapels, those who have no ear either are silent or perhaps get a hint to be so from a friend, for it is astonishing how well a single voice out of tune can be distinguished among a number. At any rate, we must either suppose this, or that a dissenter, as such, is more musical than a churchman, for, as we have observed, the singing in the chapels of the former is seldom offensive from being out of tune. But, under the thunder of a diapason stop, many try their voices who, to say the least, do not add to the general effect. From what we have experienced, we begin to suspect, in addition to our former surmise, that the national ear is, though correct after practice, not so keen as in some other European countries; so that even with the organ as a guide, there is a large proportion which wants a little drill.

The churches which have no organs are mostly provided with a few instrumental performers from among the village, among whom bassoons, clarionets, and fiddles are common enough. These instruments are frequently fairly consistent with themselves, and not at all so with each other, so that there is some excuse for the congregation, who usually regard themselves as to the fullest extent.

On the whole, then, we think that our devotional music is no great index of any love for, or cultivation of, the art. We very much wish that it were otherwise, and that rectors, curates, and ministers would make efforts to effect some reformation. They should recollect that they would, thus not only promote their great object—since there is no denying that good church music is a strong aid to devotional feeling—but that they would also be instrumental in spreading a humanizing art, and thereby furnishing their flocks with an additional source of harmless pleasure. One well-directed attempt to promote an innocent amusement would be worth two sermons against pernicious ones:—"a fair exchange is no robbery."

(To be continued.)

CATHEDRAL OF EXETER.



[West Front of Exeter Cathedral.]

THE Cathedral of Exeter, although, as will be seen, a considerable period elapsed between the commencement and the completion of the building, is remarkable, above most of our other cathedrals, for the uniformity of the architectural character which it presents throughout. The plan of its founder, although he was himself only able to execute it in part, appears to have been taken as their guide by all those who continued the structure after him. Its pervading style is what may be called the middle Gothic;—without any thing either of the rudeness of the Saxon and the heaviness of the earliest Norman style on the one hand, or of the

extreme lightness and florid ornament which distinguish the latest stage of Gothic architecture.

The nave and choir of the church, together with the Lady Chapel, to the east of the latter, make a length of about 408 feet in all. The nave with its aisles is 70 feet in breadth, and is crossed by a transept, which, however, only extends about 30 feet beyond each of the side walls, the two projecting portions being formed each of the basement story of a great square tower, which has been arched out for that purpose. The height of each of these towers, which are massive structures, surmounted by pinnacles at the four corners,

is about 130 feet. • Buttresses, which rise into pinnacles, are placed in thick succession both along the north and south sides and around the ends of the building, giving to the upper part of it considerable richness of effect.

The west-front, however, is the most highly ornamented portion of the exterior. The form of the façade is peculiar, consisting of a broad-based triangle, elevated upon a parallelogram, so as somewhat to resemble a modern gable. Along the two ascending sides of the triangle rise a series of lofty and fancifully decorated pinnacles, under the central one of which, crowning the apex of the fissure, is a window, filled with stained glass, of magnificent dimensions, and terminating in a pointed arch. Under this is the great central door opening into the nave, and to the right and left of that are the two aisle doors: All the rest of the wall is covered by a rich display of sculpture, consisting mostly of statues in niches, ranged in a series of tiers, and representing a vast number of scriptural characters—kings, prelates, and other persons of eminence. Time has now obliterated the finer features of this elaborate design; but the throng of figures, though they do not appear to have been executed by any means in the best style of Gothic sculpture, still make a highly imposing show.

The interior of this cathedral, however, is what merits the most admiration. The great height of the nave, nearly 70 feet,—the boldly ribbed roof,—the clustered columns, of which there are seven on each hand, with the lofty arches that rise between,—the handsome stone screen, which conceals the choir,—and the numerous monuments, many of them of beautiful antique workmanship—are displayed to great advantage by the abundant light that is admitted through the great western window and the others of smaller dimensions ranged along the north and south walls. The transept is also lighted by two magnificent windows, which have been cut out in the walls of the great towers that form its extremities. Near the middle of the north side of the choir is a singular erection, of which, we believe, there is no other example in the cathedrals of this country, but which is not unfrequently found in continental churches:—a gallery which appears to have been designed for a kind of orchestra, or a place of accommodation for a band of instrumental musicians. It is supported by 13 pillars, between each two of which stands, in a niche, the figure of a person playing on a musical instrument. Among the instruments are guitars, citterns, horns, flutes, &c. It still retains the name of the Minstrels' Gallery. The entire length of the nave is about 175 feet. The choir is about 130 feet long. On its south side stands the bishop's throne, surmounted by a lofty pyramidal canopy, of a light and highly fanciful style of Gothic carpentry. An elegant stone screen is now placed behind the altar in place of a former one which was of wood. Here, also, are several ancient monuments, and monumental chapels, of the richest workmanship.

The present name of the city of Exeter is radically the same with that which it bore both in the British and in the Saxon times, being derived from the river Exe, or Esk, which flows past it. Exe, or Esk, properly *Wisc*, is merely the old Celtic term for Water. It is the same word which forms the first syllable of the Irish *Usquebaugh* and the Scotch *Whisky*, both of which signify "the water of life." From this word the Britons called the town built here *Caer-wisc*,—that is, the town on the water or river. They gave the same name to the town now called *Usk*, in Monmouthshire, which also stands on a river that still retains the appellation of the *Usk*, another corruption of the same original British term from which have been formed the modern *Exe* and *Esk*. • The Romans, Latinizing,

as they usually did, the native word, called both these towns *Isca*, distinguishing the one in Monmouthshire, however, as the *Isca* of the *Silures*, and the other as the *Isca* of the *Damnonii*, the tribes in whose districts they respectively lay. The modern *Exeter* is an abbreviation of the Saxon *Exancester*, the termination *cester* (that is, *castrum*) of which indicates that the place had been a fortified station of the Romans.

The see of the bishop, however, was not transferred to this place till a long time after the establishment of Christianity throughout England. There were originally bishoprics both of Cornwall and of Devonshire; the seat of the former was first at *Bodmin* and afterwards at *St. German's*, and that of the latter, first at *Bishop's Tawton*, and then at *Crediton*. The see of Cornwall was joined to that of Devon a short time before the middle of the eleventh century; and, in 1050, the seat of the united dioceses was removed from *Crediton* to *Exeter*, in which town it has ever since remained, and from which it has taken its name. The name of the bishop in whose time the removal took place was *Leofric* or *Leuric*; and he was installed in his new cathedral with great pomp, the king, *Edward the Confessor*, and his queen, both taking a leading part in the ceremony. The present edifice was begun early in the twelfth century, by *Bishop William Warlewast*. All that he erected, however, was so much injured soon after his death, in the course of a siege of the city by *King Stephen*, in 1136, that his successor, *Bishop Chichester*, found it necessary to commence a reparation of the cathedral on the most extensive scale. The work was continued by the next three bishops, and was not completed till the time of the fourth, *Bishop Henry Marshall*, who died in 1206.

From this date the cathedral remained without undergoing any alteration that has been recorded till the episcopacy of *Peter Quivil*, who, by the changes and additions which he executed himself, and by those which were accomplished by his successors in pursuance of his plans, deserves to be regarded as really the designer and founder of the present building. *Quivil* was bishop from 1281 to 1291. It was he who first formed the transept by cutting arches in the interior walls of the two great towers, and piercing those opposite with the magnificent windows by which this part of the building is now lighted. The repairs thus begun, and which eventually extended to the renovation of the whole fabric, with the exception of the towers, were not entirely completed till the prelate of *Bishop Thomas de Brentingham*, who presided over the see from 1370 till 1394. But the two prelates, by whom the work had, during this interval, been most effectually promoted, were *Bishop Walter Stapledon* and his successor *Bishop John Grandisson*. *Stapledon*, by whom the choir was completed about the year 1318, was distinguished for his munificence. He was the founder of *Exeter College, Oxford*, originally called *Stapledon's Inn*, and also of *Hart Hall* in the same university. Having held the office of *Lord Treasurer*, and been frequently employed in embassies and other high employments of state by *Edward II.*, he continued steady to the party of that unhappy prince throughout the troubles which agitated the close of his reign, and to which he fell a victim a few months before his royal master. He was executed in *Cheapside* by the populace of *London*, along with his brother, *Sir Richard Stapledon*, on the 15th of October, 1326.

Bishop Grandisson succeeded *Stapledon*, and presided over the see till 1369. He is said by *Leland* to have vaulted the body of the cathedral, and it is probable that the gorgeous west front was also his work. The antiquary *John Hooker* (otherwise called *Vowel*), in his '*Description of Exeter*,' written in 1583, says of this prelate, that "sequestering himself from all idle

persons, he kept no more about him than were absolutely necessary, in order to compass the charge of such mighty works; likewise assembling his whole clergy, he persuaded them to bequeath all their goods, &c., to the building of the mother church of the diocese; and he also prevailed on sundry temporal men to give of their store; as, namely, Hugh Courtney, Earl of Devon, from whom he got 200 marks."

The Cathedral of Exeter is remarkable for its organ, its bells, and its ancient astronomical clock. The clock is in the north tower, and is said to have been the gift of Bishop Courtney, who occupied the see from 1478 to 1487. Mr. Britton, however, in his 'History of Exeter Cathedral,' has referred to some ancient authorities, from which it would appear that there was a famous clock here at least a hundred years before the time of Bishop Chichester. The present clock, besides the hour of the day, indicates the age of the moon, and represents the revolution of that luminary around the earth. Its face is seven feet in diameter. In the north tower is also the famous bell, called the Peter, the largest in England except Great Tom of Christ's Church, Oxford. The bell at Christ's Church weighs 17,000 lbs., and this is said to weigh 12,500. Unfortunately, the Exeter bell is now so hung that it cannot be rung. It, as well as the clock, is said to be the gift of Bishop Courtney; but Mr. Britton, to whose work we are indebted for these particulars respecting it, is of opinion that it is probably of still greater antiquity. The tradition is, that it was brought from the cathedral of Llandaff. Having been cracked on the 5th of November, 1611, it was recast in 1676. The organ is said to be the most powerful in Europe, except that at Haarlem, and even to that it is considered to be superior in sweetness of tone. It was built by an English artist in 1665.

THE GONDOLA.

"There is a glorious city in the sea;
The sea is in the broad, the narrow streets,
Ebbing and flowing; and the salt sea-weed
Clings to the marble of her palaces.
No track of men, no footsteps to and fro,
Lead to her gates. The path lies o'er the sea,
Invisible; and from the land we went,
As to a floating city,—steering in,
And gliding up her streets as in a dream,
So smoothly, silently,—by many a dome,
Mosque-like, and many a stately portico,
The statues ranged along an azure sky—
By many a pile in more than Eastern splendour,
Of old the residence of merchant kings."

Thus, in his 'Italy,' Rogers speaks of Venice,—the city which poets have so eloquently described in her prosperity, and so feelingly mourned over in her fallen estate. Of the same city Lord Byron says,—

"I lov'd her from my boyhood,—she to me
Was as a fairy city of the heart,
Rising like water columns from the sea.
Oh joy the sojourn, and of wealth the mart;
And Otway, Ratchiff, Schiller, Shakespeare's art,
Had stamped her image in me."

It is not, however, our present intention to describe Venice; but we have quoted these passages as suitably introducing an account of the gondola, or boat, employed in traversing the marine streets or canals of that city.

The length of this beautiful boat is nearly thirty feet, and the breadth about five; and it affords accommodation for six passengers besides the two rowers. Some, however, are much smaller, and are rowed by one person. The form is very light and elegant. The gondola is flat-bottomed, and its sides slope away considerably, particularly towards the after part, which, when the boat is empty, rises high out of the water. The seats, which are placed at a distance of something less than two-thirds the length of the boat from its head, have a tilt over them,

with windows and curtains. This tilt, which is extremely light and elegant, and removable at pleasure, is of frame-work, covered with black cloth, ornamented with tufts of the same colour. The head is furnished with a flat iron beak or prow, of the form shown in the wood-cut, which is similar to what is seen in the representation of the ancient galleys; this is never painted, but kept highly polished: the stern has a wooden beak, not so elevated as that at the head. The seats usually have cushions covered with plush, and the floor is furnished with carpets. The gondolas of private persons, as well as those which are let for hire, are invariably painted black. Formerly the Venetians vied with each other in the splendour of their gondolas, but so much inconvenience was found to result from this rivalry that a sumptuary law was issued, many years since, prescribing the size, form, and colour, in which the gondola still appears.

The black colour gives them a very sombre, funereal appearance, and their first effect on strangers is at variance with our notions of Venetian gaiety and elegance. Our sailors call them "floating coffins," "queer craft,"—and, indeed, they have something of a hearse-like character about them. When the black is allowed to become brown and rusty, as is now, owing to Venetian poverty, too often the case, they look particularly shabby and still more dismal. In such a city as Venice, intersected in every part by canals, and where there are few parts where people can walk a hundred yards without coming to a high, steep bridge, built nearly always, not in inclined planes, but in steps rising over an arch, carriages and horses would be of no use. The gondola is the sole equipage of the noble Venetian. In this he is carried on his visits, for his amusement, or to his business, and in this a considerable part of his time is passed. His head gondolier is to him what the head coachman and the groom are to an English gentleman, and something more. When he wishes to go out, he does not order "the horses to be put to," but the gondola to be got ready. As the fares are low, even the poorest people make frequent use of these boats, and on a saint's day, or other holiday, they are seen gliding in all directions,—their occupants sometimes conversing or listening to stories, more frequently playing at tarocco, a game at cards.

In rowing, the gondoliers stand on the extreme edge of the vessel: the master, or principal gondolier, on the right side, with his face towards the head of the boat, and his companion on the left side, behind the company. On the after part, where the back rower is placed, there is a flat piece added over the gunwale of the boat, on which he stands. Thus placed, the gondoliers seem, to strangers, in imminent danger of falling overboard. But this is an event which rarely happens. They balance themselves with apparent ease, and even elegance, pushing their oars forward, and giving them, by the action of the wrist, a turn in the water, resembling what is called with us "feathering." The oars are made of a very light sort of fir; the blade is not bent as in the English oar, but more in the form of a paddle. They do not use row-locks, but employ a single fixed thowell, of a crooked form, and about a foot long, against which they hold the oar by pressure only. Previous to turning a corner, from one canal into another, the gondoliers have a peculiar cry, rather musical and agreeable, designed to give warning to gondolas which may be approaching in an opposite direction. The vessel appears to glide with great rapidity; but whether the motion is more or less rapid than that of a Thames wherry, rowed by a pair of oars, it is difficult to ascertain, as the gondola is always employed in still water, while the wherry is rarely seen in motion but with the advantage or opposition of the tide.

The gondoliers were formerly a very interesting portion of the Venetian population, and enjoyed a degree of consideration beyond that to which persons in a similar station of life receive among ourselves. They still are a civil and well-behaved body of men, and act as *ciceroni* to travellers in showing them the curiosities of Venice, and even go with them to the opera-house, and conduct them to their boxes. Formerly they made the city vocal; for, in gliding through its canals, and at other times, they sang to one another, in alternate stanzas, passages chiefly from Tasso, translated into the Venetian dialect. The verses they sang were almost invariably taken from Tasso, and rarely from Ariosto or any other poet. The motives for this decided preference have been reasonably assigned by several writers to the circumstance of Tasso's 'Epic' relating to the wars of the Crusades, where the crescent of Mahomet was made to wax pale before the Christian cross, and to the antipathy arising from long warfare, both by land and sea, both in Europe and in Asia, that has existed between the Venetians and the Turks. Shakspeare's Othello will show, as well as any historical record could do, how violent was this feeling. To this may be added that the Venetians, even down to our own day, have continued an intimate intercourse with Syria, the Holy Land, Turkey, and all the Levant, and are thus the better prepared to enjoy Tasso's brilliant and beautiful pictures of the "Orient."

The melody thus sung was calculated for remote effect; and when the gondoliers of distant vessels sung to each other in alternate verses, the sound, as it came "by distance made more sweet," was singularly pleasing. Speaking of this vocal performance, it is

said, in a note to the fourth Canto of 'Childe Harold,' "It suits particularly well with an idle solitary mariner, lying at length in his vessel, at rest on one of these canals, waiting for his company or for a fare, the tiresomeness of which situation is somewhat alleviated by the songs and poetical stories he has in memory. He often raises his voice as loud as he can, which extends itself to a vast distance over the tranquil mirror; and as all is still around, he is, as it were, in a solitude in the midst of a large and populous town. Here is no rattling of carriages, no noise of foot passengers: a silent gondola glides now and then by him, of which the splashing of the oars are scarcely to be heard. At a distance he hears another, perhaps utterly unknown to him. Melody and verse immediately attach the two strangers; he becomes the responsive echo to the former, and exerts himself to be heard as he had heard the other. By a tacit convention they alternate verse for verse: though the song should last the whole night through, they entertain themselves without fatigue, and the hearers, who are passing between the two, take part in the amusement." But this interesting practice has declined with the prosperity and independence of Venice. The lagoons are allowed to be choked, and to corrupt the air: the spirit of the people has departed: and although some old gondoliers remember the usual verses, and can execute the chant, it is never voluntarily undertaken, and now

"In Venice, Tasso's echoes are no more,
And silent rows the songless gondolier;
Her palaces are crumbling to the shore,
And music meets not always now the ear:
Those days are gone."

CHILDE HAROLD.



[Gondola, with a Single Rower.]

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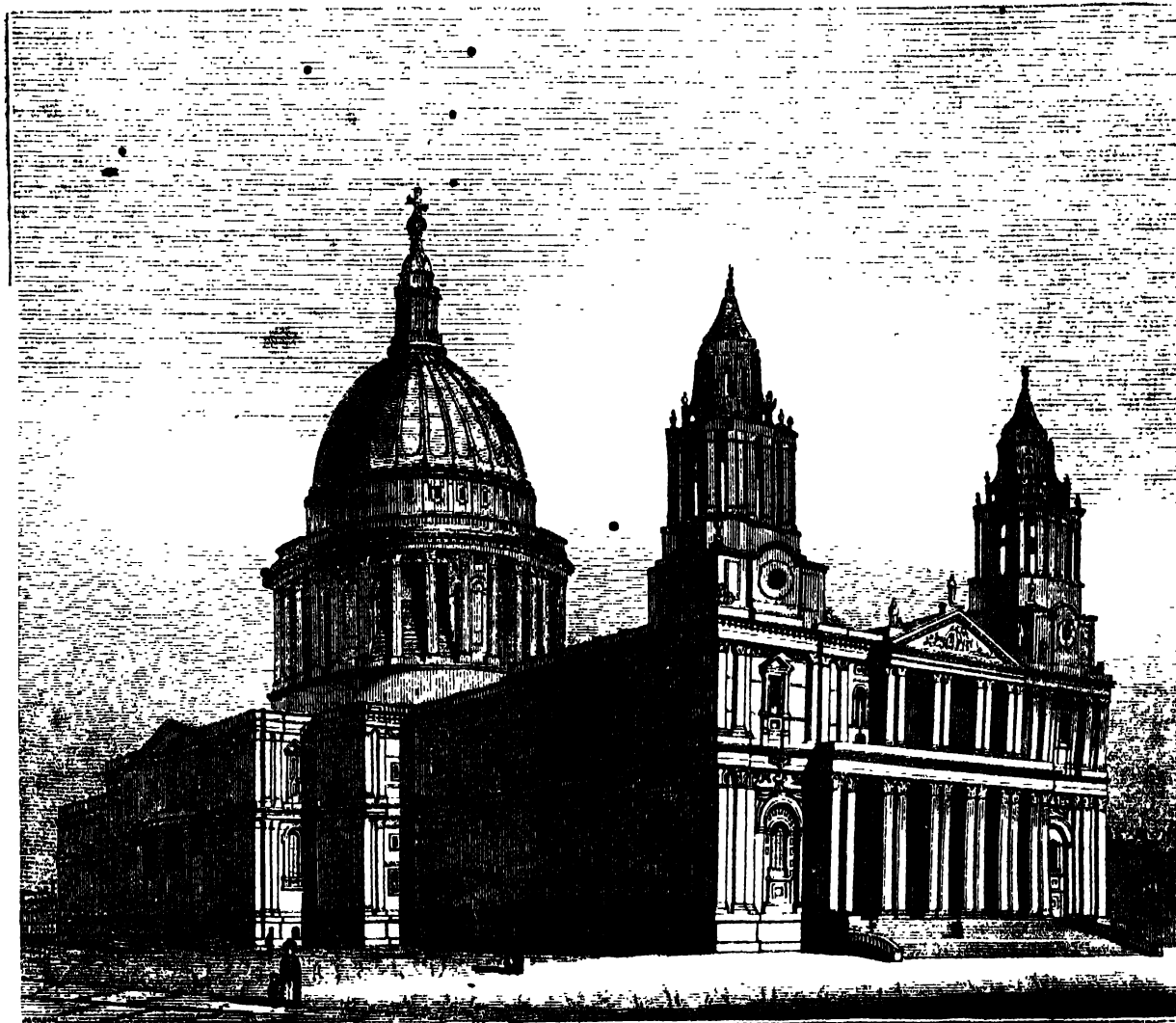
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March 31, to April 30, 1834.

ST. PAUL'S CATHEDRAL.



[North-West View of St. Paul's Cathedral]

IN the Seventh Number of the 'Penny Magazine' we gave a sketch of the history of the successive churches which have occupied the spot on which our metropolitan Cathedral now stands. In the present Supplement, our object will be to point out what is most remarkable in the existing building, considered both in an architectural and an historical point of view.

The cathedral which immediately preceded the present was, in several respects, a remarkable edifice. Some of its dimensions probably exceeded those of any other church in Christendom. Its length, from east to west, was 690 feet, and the spire over the great central tower had, before its destruction by an accidental fire in 1561, been 520 feet in height. Within a century after it had lost the last-mentioned striking ornament, the pile received another of a different character in the beautiful western portico, the work of the rich and fanciful genius of Inigo Jones. The breaking out of the civil wars, however, put a stop to the general restoration of which

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this was but the commencement; and for more than ten years the cathedral went to decay as fast as neglect and ill-usage together could hasten it.

Although on the return of the royal family and the old order of things, the deplorable condition of St. Paul's excited much public attention, it was not till towards the close of the year 1663 that active preparations began to be made for repairing it. The works were put under the direction of Sir John Denham the poet, who held the office of the King's Surveyor-General, for the duties of which, however, he was quite unqualified. The place had been given to him in his old age as a reward for his loyalty; but fortunately the appointment of Wren as his assistant amply compensated, in so far as the public interest was concerned, for Sir John's deficiencies. But the removal of the private houses, shops, and other buildings which had been erected against the walls of the cathedral, was all that had been done when the memorable conflagration of the 3rd

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of September, 1666, emphatically called the Great Fire, in a few hours reduced the whole to a mass of bare and tottering ruins.

Even after this catastrophe, it was for some time believed that a restoration of the old building was practicable. Commissioners were appointed to consider what ought to be done; and they held their first meeting on the 15th of January, 1668. Mr. Malcolm, in his '*Londinum Redivivum*,' has printed several extracts from the minutes of their proceedings, still preserved in the custody of the dean and chapter of the Cathedral, which give an interesting view of the state in which the building had been left by the fire. They describe the whole east part as "being under greater desolation than the rest, not only the timber roof being burnt, and the stone vaults above for the greatest part thrown down, and the outwalls there weakened more than in other places, but the very inner walls and pillars between the choir and north aisle being fallen also (and those on the south side in great danger), and in their fall having broken open the vaults into St. Faith's Church." The church of St. Faith was the church belonging to the parish of that name, now united to the adjoining parish of St. Austin's; it occupied the portion of the Crypts, or, as they were vulgarly called, the Crowds of the Old Cathedral, extending under the choir and the chapels to the east of it. The commissioners go on to describe "the body of the church between the west end and the second pillars, above the little north and south doors" as being the portion that was least injured; and this they proposed to have repaired, so that it might be ready for the performance of divine worship by the ensuing summer. It appears, Malcolm tells us, from a succeeding order in the minute-book, that in the general desolation which had broken down every man's landmarks and swept away his dwelling-place, "sheds and shops had been erected by the wretched inhabitants of the neighbourhood within the churchyard, and even against the falling walls."

Upon further examination, however, it was ascertained that the walls were in no part sufficiently strong to make it safe to give them a new roof to sustain; and upon this it was determined that nothing beyond the old foundations should be preserved. Meanwhile, on the 30th of July, 1669, Wren was unanimously appointed by the commissioners surveyor-general of the works, in the room of Denham, who had died a few weeks before. It was probably soon after this that the plan of an entirely new church was resolved upon. It appears that, before the close of the year 1672, Wren had submitted to the king several designs for such a structure. The one after which the present church was built—although with some important deviations, as we shall immediately have occasion to notice,—was his majesty's choice, and was probably, also, that which Wren himself preferred. In consequence, however, of the various preparations which had to be made, the first stone of the new building was not laid till the 21st of June, 1675.

Wren's salary, as surveyor of the works, was now fixed at 200*l.* per annum, out of which he had to pay for the models and drawings of every part, as well as to audit all the accounts, and to visit the building daily, and afford it his constant superintendence. The necessary funds for carrying on the work were raised by a duty upon coals, which had been first imposed expressly for this purpose in 1670, and was continued by successive acts till 1716. Applications were also made by the commissioners for the arrears of certain subscriptions for the repair of the cathedral, which had been entered into before the great fire; and considerable sums appear to have been in this way obtained from the bishops and others. Reynolds, Bishop of Norwich, for instance,

paid his full subscription of 440*l.*; Sheldon, Archbishop of Canterbury, gave 2000*l.*; and Ward, Bishop of Salisbury, 240*l.* Others, however, declared their inability to afford anything; among the rest, Guy Carleton, Bishop of Bristol, whose answer to the commissioners is of a singularly melancholy tenor. Their letter of the 21st of September, 1676, had only reached him, it seems, a few days before the 5th of February, in the year following, the day on which he writes. "It came to Bristol," he says, "when I was in the north, and came then to Newcastle and Durham after I was come away from thence; and at last, after a considerable rest in the country, round again to Bristol." Such in those days, it appears, was the state of communication between one place and another in England, that a letter might be four months and a half in reaching even a person of such note as a member of the bench of bishops, if he happened to be in a remote part of the country. In this instance, however, there was possibly some little disposition on the part of the bishop to keep out of the way of the letter. His lordship proceeds—"The business was, to get my name to a contribution towards the rebuilding of St. Paul's Church; a great and good work, to which no man would more willingly put a helping hand than myself, were I able, and in a capacity to do it; but, indeed, the bishoprick of Bristol is both so beggarly of itself, and hath made me so likewise by being the bishop, (who, before I came to it, was in a condition to live without begging or borrowing,) that, unless his Majesty please to allow some additional support, the dignity must fall to the ground, and I with it." He concludes by saying that he will most readily give something,—"if God please that hereafter my condition may increase to answer so good and pious a motive."

Considerable difficulties, occasioned by want of money, were experienced at different times during the progress of the work; and it appears to have been even once or twice stopped on this account. But it was at last finished in 1710, the whole sum expended on it having been 736,000*l.*, or about 20,000*l.* per annum on an average from its commencement in 1675. The same architect, Sir Christopher Wren; the same master-mason, Mr. Thomas Strong; and the same bishop, Dr. Henry Compton; who had seen the foundation stone laid, saw also the placing of the highest stone of the lantern over the cupola.

St. Paul's is the only English cathedral built in that style of architecture which, to employ the most comprehensive phrase, may be denominated the Classic, as distinguished from what is called the Gothic, including the various forms that successively arose in Europe after the fall of the western empire. Of course, as there were no Christian churches in Greece and Rome, at least during the flourishing times of architecture and the other arts, a modern cathedral cannot exhibit in every respect either an imitation of any Greek or Roman building, or a complete exemplification of the principles of classic architecture. As, on the one hand, these edifices, even when most strongly marked with all the peculiarities of the Gothic style, retain traces of the fashion of the Roman Basilicæ, or royal palaces, from which they took their origin, those of them on the other hand that are in general constructed on the purest classical principles must in some things differ from any classic building that ever existed. Indeed, what is called the classic style of architecture, as exemplified in Christian churches, is in all cases something of a very mixed description. St. Peter's at Rome is an evidence of this as much as St. Paul's in London. In these two buildings the columns and the arches that connect them belong, it is true, to the ancient orders, but in almost all other respects they are nearly as unlike any Greek or Roman building as is York Minster itself.

Without entering upon the question as to which of the two styles possesses the greatest beauty, or suitability for ecclesiastical buildings in this country and climate, we may at least assume that it was desirable to have in England one cathedral not Gothic. That of London is the only one of our old cathedrals which has been entirely destroyed, and which, consequently, it had become necessary to rebuild from the foundation, since what may be called the proper age of Gothic architecture,—when it was practised, we mean, not imitatively, as now, but because it was natural to the time,—not as a language is spoken after it is dead by those who have learned it from books or at a school, but as men speak their vernacular tongue. This particular cathedral, therefore,—necessarily new at any rate,—seemed to offer a good opportunity for a single exemplification of a new style. No Gothic pile was sacrificed in order to make room for the classic one. At all events, it will be acknowledged that, Sir Christopher Wren being the architect, it would have been unfortunate if the task assigned to him had been the erection of a Gothic cathedral. Neither his studies nor the character of his genius fitted him for excellence in Gothic architecture. The two western towers of Westminster Abbey, which he erected, show how indifferently he would, in all probability, have acquitted himself if he had been forced to exert his powers, on this occasion also, on an attempt for which they were so little suited: and we should have lost a structure which is undoubtedly one of the noblest the world has ever seen, let us judge it by what standard we may.

Like most other cathedrals, St. Paul's is built in the form of a cross, the longer arm of the figure extending from east to west. The shorter, or transept, is nearer the east than the west end: but there is also at the west end what may be called a smaller transept, in respect at least to the external form of the building. The entire length of the church, from east to west, is 500 feet, and that of the proper transept 255. The breadth of the body of the church is 107 feet, and that of the transept nearly the same. Over the intersection of the transept and the nave rises a dome, surmounted by a lantern, a globe, and a cross; and two campanile towers, or belfries, also ascend from the two extremities of the west front. The height from the pavement of the church to the top of the cross over the dome is 356 feet; and the campanile towers are each about 220 feet in height. The general height of the walls is about 90 feet. The three entrances to the church are at the west end, and at the north and south ends of the transept. The two last-mentioned porches are each formed by a portion of a circle. The line of the east end of the church is also broken by a semi-circular projection of its central portion.

Such is a general outline of the external form of the Cathedral. But the vast pile, which would be imposing from its mere magnitude, had it little more to boast of, is invested with the highest degree of beauty and grandeur by the superb decorations with which almost every part of it is enriched. The west front is now generally admitted to be superior to any other in existence; not excepting that of St. Peter's. The grand portico in its centre consists of two parts; the lower formed by twelve columns of the Corinthian, and the upper by eight of the composite order. Wren's original idea was to employ only one order, and a single series of pillars ascending from the ground to the majestic height (including pedestals, capitals, and other ornaments above and below) of nearly 90 feet. In simplicity and purity, this elevation would have been superior to the present; and the effect would probably have been exceedingly noble. But the design was found of impracticable execution, from the impossibility of finding blocks in the Portland quarries of

the requisite dimensions. It may be safely said that the great architect, by the arrangement actually adopted, has made as much as it was possible to do of the materials to which he was confined, and more than was ever before made of the same space. To a spectator coming up Ludgate Hill, which must be regarded as the grand avenue to the metropolitan Temple, this façade, seen through the narrow opening, which almost cuts off every other object except the portico, the towers, and the dome of the Cathedral, presents a combination of majesty and beauty which cannot be contemplated by the intelligent eye without the deepest sense of the presence and the power of triumphant art. It sometimes happens that the rays of the afternoon or evening sun, coming through a clear atmosphere, are thrown strongly upon the columned and sculptured display, while a black cloud, veiling the opposite quarter of the heaven, forms a back-ground, from which the whole pile projects in full relief, and so as to produce the finest contrast of light and shade. In these circumstances the west front of St. Paul's is seen in all its glory; and, although the street is both too narrow to afford a view of the whole building, and its direction is such as to show what it does discover only obliquely, it may be doubted if a more full and direct exposure at this point would produce an effect so striking and noble. It has indeed been disputed whether, upon the whole, this magnificent structure would be seen to greater or less advantage if it stood in the midst of a large open space instead of being surrounded, as it actually is, on all sides by other buildings that approach within a few yards of its walls. It is apprehended by some that, if these surrounding buildings should be removed, the Cathedral would lose much of the imposing appearance which it now derives from the contrast between its vast bulk and their comparatively puny dimensions. We are inclined to think that the church has magnitude enough to sustain itself without this foil, and that even if it stood in the midst of Salisbury Plain, with nothing else within sight but the sky and the great panorama of nature, it would be a grand object. But be that as it may, no such perfect solitude and absence of all objects of comparison would be produced by merely removing the nearest of the buildings by which, as it stands, it is on all sides so closely environed. Houses and streets innumerable would be still around it;—it would still look down upon the whole mighty world of London, although there should be no other building within a hundred or a hundred and fifty yards of it. That distance would not take them out of the scope of the eye in whose field of vision it was the principal object; but it would allow every part of the cathedral to be seen from the proper point of view, and the whole extent of the edifice to be taken in at once, which at present can nowhere be done. Even of its magnitude we have now no other means of obtaining an idea except by walking round it. Seen from a more distant station than is now to be had,—from the front of the New Post-Office, for instance, with the intervening parts of Newgate Street, Paternoster Row, and the houses in the churchyard removed,—it would fall upon the eye and the mind with a simplicity and completeness of effect altogether new. Its size, we are convinced, would seem vaster than ever. But, at all events, whatever is admirable in the building apart from its mere magnitude, is at present in many parts nearly hidden from view altogether, and, in others, can only be seen with difficulty, and under such disadvantages as destroy more than half its magnificence or beauty. Excepting the view already mentioned that is obtained of the west front from Ludgate Street, there is scarcely a good view to be had of any other part of the body of the church. The towers and dome, indeed, are seen to great advantage from Blackfriars

and Waterloo Bridges; but none of the under portion of the building is visible from these points. The glimpse afforded by the opening into Cheapside, at the north-east angle of the churchyard, is too oblique, besides being extremely limited; and the east end is so pressed upon and hidden by the buildings forming the opposite side of the street, as, unless it may be from the windows of these houses, to be nearly invisible from any point whatever.

After the west front, the north and south porches, and the latter especially, present the most superb ap-

pearance. The entablature over the principal entrance contains a representation of the miraculous conversion of St. Paul, by Francis Bird. Over the pediment are placed three statues; that on the apex representing St. Paul, that to the north St. Peter, and that to the south St. James. The entablature of the northern portico presents a carving of the royal arms supported by angels, and over the south door is a Phœnix rising from the flames, with the word *Resurgam*—I shall rise again—under it, in allusion to the destruction and restoration of the cathedral. The bird is carved by



[Interior of St. Paul's from under the Dome.]

Gabriel Cibber, the father of the more celebrated Colley, and also the sculptor of the two statues, of great merit, which formerly stood over the front gate of the Old Bethlehem, in Moorfields. Bird modelled the scrolls, ball and cross, for the lantern, and the pines for the towers. He also executed the statue of Queen Anne, with the statues of England, France, Ireland, and America, seated at her feet, before the west front of the church; and for this group he received in all 1180*l*. Her majesty's nose was struck off by a lunatic nearly a century ago, and has never been restored. The chiselling on the exterior of the cathedral is already everywhere greatly defaced, partly owing to the smoke which has settled upon it, but more from the effects of the weather upon the freestone, which unfortunately is very ill adapted to resist the winds and rains of such a climate as ours.

Before leaving the exterior of the cathedral, we ought, perhaps, to notice the iron balustrade, or railing, inclosing the portion of the churchyard immediately around the building, which is still used as a cemetery. It appears to have excited extraordinary admiration when it was first erected, although it will hardly be looked upon as anything very wonderful in the present day. It consists of between two and three thousand palisades, each five feet and a half in height, and cost above 11,000*l*. It was cast at Lamberhurst in Kent. Maitland, in his 'History of London,' describes this as "the most magnificent iron balustrade, perhaps, in the universe." The celebrated *Paul's Cross*, at which sermons were anciently delivered in the open air, and which is famous both in the ecclesiastical and the civil history of the country, stood in the northern part of this inclosed area, a little to the east of the centre. It appears to have subsisted down to the commencement of the civil wars in the reign of Charles I.; and the sermons preached at St. Paul's—for the maintenance of which, under that name, there are several ancient benefactions—are still called *Paul's Cross Sermons*, though now delivered in the choir of the cathedral.

The door by which the public are now usually admitted into the cathedral, both when it is open for the performance of divine service and at other times, is that of the north transept. The effect of this regulation is, that whatever of majesty and harmonious beauty there is in the plan and disposition of the interior is lost to the visiter on his first advance. But this is not all. Nearly the whole of the nave from the west end to the transept is railed off, so that visitors are completely shut out from the only part of the church from which its proportions can be seen to full advantage. A person, on the contrary, entering from the great western door, has before him the entire length of the nave, as far as the entrance to the choir, presenting an unbroken vista of nearly 340 feet, with so much of the choir as can be seen through the iron folding door at its termination. If the door of the choir be open, the prospect is extended to the extremity of the building, a distance of 500 feet; and the spacious temple stands revealed in all its magnitude and grandeur. The parts of the building at the west end, which project on each side beyond the line of the nave, form, as has been already intimated, no part of the body of the church, the north tower being a belfry, and that to the south containing a staircase, while beyond the former is the apartment called the *Morning Chapel*, and beyond the latter the *Consistory Court*. Both these rooms are separated from the nave by screens of wood. The nave is divided into three portions, a middle and two side aisles, by two rows of massive pillars, two of which on each hand are square, and the others oblong, in shape. In Wren's original design, the nave was without these divisions; and he is said to have felt so strongly the injury done

by their introduction to the effect which he intended to produce, that he shed tears when compelled to admit them on the ground that such an arrangement was conceived to be essential to the character of a cathedral. According to one account, the point was carried against the representations of the architect chiefly through the influence of the Duke of York (afterwards James II.), whose object is supposed to have been the adaptation of the church to the forms of the catholic service. The transept is also divided into a central portion and side aisles by means of two immense oblong pillars, or rather piers, on each hand.

While, notwithstanding its inferior dimensions, the external appearance of St. Paul's has been preferred by many to that of St. Peter's, it is admitted by all that the interior of the English cathedral will bear no comparison with that of the Roman. Both in its spaciousness, and still more in the ornamental splendour that blazes from every side, the latter far surpasses the former. The upward view from under the dome of St. Peter's especially, from the vast height to which the eye is carried, as well as the glorious pictorial display with which it is filled, has been generally acknowledged to have no rival in the world. The corresponding spot in St. Paul's, however, is also that from which the surrounding scene assumes its most imposing aspect. There is extent enough to convey an impression of extraordinary magnificence; and the dome, though not so elevated as that of St. Peter's, is still very lofty. The form of the concave, which approaches considerably nearer to that of a circle,—the height being equal to a diameter and a half, while in St. Peter's it is equal to two diameters,—has also been considered more beautiful than that of its rival.

• The cupola is lighted from the lantern over it. It is painted by Sir James Thornhill, the subjects being taken from the history of St. Paul. It was while at work on these pictures that Sir James is said to have made the narrow escape of which, probably, most of our readers have heard. Stepping backwards one day to observe the effect of what he had been doing, he had reached the edge of the scaffold, and would, by another step, have been precipitated over it, when a friend who happened to be with him snatched up a brush and began to bedaub the picture—on act which, instantly making the painter rush forward, in surprise and alarm, to prevent the threatened obliteration of his work, saved him from destruction. The paintings, which have much merit, are now unfortunately defaced in many places by the damp, which inattention to the regular ventilation of the church has allowed to act upon them.

The screen of wrought iron which separates the choir from the nave is very elegant. Over this the organ is placed. But the principal thing deserving of attention in the choir is the exquisite carving of the stalls, the work of the celebrated Grinling Gibbons. The altar is plain, and almost mean, a magnificent design which Wren furnished for this part of the cathedral never having been executed. Near the altar stands the bishop's throne, distinguished by the mitre with which it is surmounted. The pew in which his lordship sits on ordinary occasions is one of the stalls on the south side of the choir. Fronting it, on the opposite side, is the seat of the lord mayor. The dean's stall is under the organ gallery. The pulpit now stands towards the middle of the floor, having been brought forward from the spot where it was originally placed near the bishop's stall. The choral service is performed here twice every day,—at three quarters past nine in the morning, and at a quarter past three in the afternoon,—on which occasions, of course, the church is open to the public. Sermons are also preached by the dean and canons residentiary on Sundays and holidays, and every Wed-

nesday and Friday during Lent. Divine service is likewise performed in the Morning Chapel every weekday morning, at seven o'clock in the summer and at eight in the winter. The full establishment of the cathedral, we may here mention, consists of the following officers: the dean, to whom the supreme jurisdiction belongs; the precentor, or chaunter, whose office is now a sinecure; the chancellor; the treasurer; the five archdeacons of London, Middlesex, Essex, Colchester, and St. Albans; thirty major canons, or prebendaries, four of whom are resident; twelve minor canons, and six vicars choral, besides the children of the choir. One of the vicars choral officiates as organist, and three of the minor canons hold the places of sub-dean, librarian, and succentor, or under precentor.

The objects in the interior of St. Paul's, by which the attention of visitors is usually first attracted and longest detained, are the monumental sculptures erected in honour of various distinguished individuals. The several large spaces, bare of all ornament, presented by the walls and massive piers, had long been felt to produce a heavy effect. There is every reason, indeed, to believe that these vacant spaces were intended by Sir Christopher Wren to serve for the receptacles of statues or paintings, and that it was in this view he left them so unrelieved as they are by any architectural decoration. In 1773, after the Royal Academy had been some years established, Sir Joshua Reynolds, as president, made an offer to Bishop Newton, then dean, in the name of himself, Mrs. Kauffman, West, Cipriani, Barry, and Dance, to furnish gratis a series of pictures on scriptural subjects, to be placed in the cathedral. This liberal proposition is said to have been well received, both by the dean and chapter, and by the king; but Archbishop Cornwallis and Dr. Terriek, the bishop of the diocese, having opposed the scheme, it was abandoned. Some years afterwards, however, the enthusiastic admiration excited by the philanthropic exertions of the celebrated Howard led to an application being made to the dean and chapter for liberty to erect some testimony of the public feeling in the metropolitan cathedral. It was favourably received; but, after subscriptions to a considerable amount had been collected, the determined opposition of the person whom it was intended thus to honour made it necessary to relinquish the design. On Howard's death, however, very soon after, it was revived; and the late Mr. Bacon was commissioned to furnish a statue of the illustrious philanthropist for thirteen hundred guineas. This monument was opened for public inspection on the 23rd of February, 1796; and soon after the statue of Dr. Johnson, by the same sculptor, was erected over against it. They occupy the corresponding corners of the two great piers on each hand of the avenue from the transept towards the choir.

This commencement has been followed up by the introduction of other monuments, from time to time, for the most part voted by parliament, in honour of distinguished naval and military officers, though there are a few also to persons eminent in the annals of literature and art. Besides that of Dr. Johnson, for instance, there are those of Sir William Jones, and Sir Joshua Reynolds. But in general, while civil eminence has been commemorated in Westminster Abbey, St. Paul's has been made a Pantheon for those who have immortalized themselves by their brilliant achievements in the defence of their country. Here are, among others, Elliot, the heroic defender of Gibraltar, and Howe, and Jervis, and Duncan, the victors of Brest, and Cape St. Vincent, and Camperdown; and Nelson, and Collingwood, and Abercrombie, and Moore, and Picton. There are above forty monuments in all.

Not much can be said in praise of the style of art in which most of the monuments in St. Paul's are executed.

It is to be lamented that, with few exceptions, we have in these works, instead of a vivid and poetical transcript from nature, almost in every instance only some hard-laboured, half intelligible, and totally ineffective, allegorical invention. Those from the chisel of Chantrey afford almost the only examples of exemption from this unfortunate taste. The monument, by this eminent artist, to Colonel Cadogan, who was mortally wounded at the battle of Victoria, and the tablet by the same to the memory of Major General Bowes, slain while heading his men at the storming of Salamanca, in both of which performances is represented with exquisite skill the living scene of strife and carnage closing in victory,—a whole poem in a picture,—are by far the finest and most touching in the whole collection. Compared to these, the cold decorations with which most of the others are incumbered hardly affect the heart or the imagination more than do the flourishes of a writing master. There are several works of Flaxman's here,—among the rest a monument to the memory of Lord Nelson; but even he has surrendered himself to the prevailing affectation, and although the statue of the hero of Trafalgar is characteristic and expressive, the miscellaneous assemblage of sea-gods, and lions, and Britannias, and sailor-boys, on the pedestal, is a mere chaos of splendid absurdities, and surely as insipid in effect as it is extravagant in conception. There is considerable truth and vigour, though of a something prosaic quality, in the statue of Johnson by the elder Bacon; and that of Lord Heathfield (General Elliot), and some others by Rossi, have also a masculine force and massiveness. The statue of Sir William Jones, by the younger Bacon, which has been sometimes praised, is unimaginative, almost below actual life, and certainly far below any thing deserving the name of art.

After having viewed this part of the Cathedral, the visitor will be conducted, if he chooses, to the vaults, or crypt, underneath. The crypt under the eastern part of old St. Paul's, as we have already stated, was used for the performance of divine service, as the church of one of the city parishes—that of St. Faith. This was a common appropriation of the vaults of our old cathedrals. As one instance we may mention the place of worship long possessed by the French and Swiss Protestants of Canterbury, under the choir of that cathedral. The crypt of the cathedral of Glasgow, also, still is, or was lately, employed as a parish church, under the name, we believe, of the Laigh (that is, the Low) Kirk. The crypt under St. Paul's is now used only as a place of interment. Although the guide leads the way down to it with a lighted torch in his hand, there is no reason for alarm or any uncomfortable feeling;—it is both well-lighted, and apparently dry and airy. Among the persons interred here are Sir Christopher Wren, the painters Reynolds, Barry, Opie, West, and Lawrence; the late John Rennie, the architect; and Nelson, with Lord Collingwood on his one hand, and the late Earl of Northesk on the other. The spot in which Wren's body rests is generally said to be that over which stood the high altar of the old church;—although, if that be the case, the former building must have occupied a very different site from the present. Wren's grave is in the south aisle of the present crypt. It is covered with a flat stone, sunk into the pavement, with an inscription on it in English, merely stating that he died in 1723, in the 91st year of his age. Hung on the adjoining wall is a tablet containing the Latin epitaph, a copy of which is now placed much more appropriately over the entrance to the choir, ending with the striking words—"Lector, si monumentum requiris, circumspice;"—Reader, if you would behold his monument, look around you.

Much regret and indignation has been expressed on the subject of the alleged neglect which has left the

great architect without any sculptured memorial formally dedicated to his honour in the temple which he raised. We hope the country never will be guilty of the bad taste of endeavouring, by any such attempt, to rival the mighty monument of Wren's genius which he has here erected for himself, and under which he actually lies entombed. To give him another would be in effect to deprive him of this, for which no other could be a compensation.

The graves of all the other eminent individuals we have mentioned are marked by inscriptions on the pavement, in the same manner with Wren's, except those of Nelson and Collingwood, whose remains are deposited in what are called altar-tombs, that containing the dust of Nelson being formed of a black marble sarcophagus, which had been originally prepared by order of Cardinal Wolsey for a tomb to himself in St. George's Chapel, Windsor. It is placed directly under the centre of the dome, where it is guarded, as it were, by the four immense piles, each about forty feet square, which support that crowning ornament of the cathedral. In the crypt are also to be seen a few mutilated statues which had adorned the old cathedral, and are the only memorials of that venerable building which have been preserved. The most remarkable among them is one of Donne, the poet, representing him wrapt in his shroud, which has been often engraved.

A description of the other curiosities of the cathedral belongs rather to the guide-books than to such a general sketch as this, in which our object is principally to direct attention to those features in the building itself, or in the objects connected with it, which possess most of a moral interest. We may merely mention, however, that among the other things which are shown are the Library, the Model Room, as it is called, the Whispering Gallery, and the Clock-works. In the library the attention of visitors is directed to the curious floor, in which a great number of geometrical figures are formed by pieces of variously-coloured oak. The books consist chiefly of a collection left by Bishop Compton. Among them are a few manuscripts, some of which, from the inscriptions on them, appear to have belonged to the ancient cathedral. This room is in the south gallery, and the model-room is on the north side of the church, directly opposite to it. Here is shown a model of the cathedral, according to what is said to have been the favourite design of Sir Christopher Wren. The whispering gallery runs round the base of the dome, and, besides its renowned echo, affords by far the best view of Sir James Thornhill's paintings. The view downwards into the body of the church from this station is also very striking. The dial-plate of the clock is fifty-seven feet in circumference, or nearly twenty in diameter,—and the minute hand is eight feet long,—dimensions that would scarcely be conjectured by those who have only seen it from the street below. The great bell, on which the hours are struck, was cast from the metal of a very ancient bell which hung in a square tower opposite to the entrance to Westminster Hall, and had rung the judges to their courts from the time of Richard II. Its weight is between 11,000 and 12,000 pounds. "The sound of this enormous mass of metal," says Malcolm, "is terrific, when in the colonnade surrounding it; but at a distance the tone is very musical." The great bell of St. Paul's is only tolled on occasion of the deaths and funerals of members of the royal family, of the Bishop of London, and of the Lord Mayor. Malcolm, writing in 1803, says that it had been silent since 1790, when it had announced the death of the Duke of Cumberland, the brother of George III.

From the Whispering Gallery, the visitor may ascend successively to the first and second gallery around the outside of the dome, and even into the ball itself, which is capacious enough to hold perhaps half a dozen people at once. A view is obtained from these stations of the metropolis and the surrounding country, as far as the smoke will allow the eye to penetrate; but, except at an early hour in the morning, the atmosphere at a short distance is generally thick and obscure. The greater part of the city, however, and so much of the river as passes through it, may usually be very clearly seen. But the ascent is so toilsome and tedious, a great part of it being perfectly dark, that most people will probably prefer enjoying the same view, as it has been transferred to canvas at the Colosseum in the Regent's Park, by the clever and most accurate pencil of Mr. Horner. In perfection of illusion that panorama certainly transcends all other attempts of the kind.

The following, according to the guide-books, are the prices of admission to the different parts of St. Paul's:—to the body of the church, 2d.; to the Whispering Gallery and the outside galleries, 4d.; to the Library, 2d.; to the Model-room, 6d.; to the Geometrical Staircase in the south turret, 2d.; to the great bell, 2d.; to the ball, 2s.; and to the vaults, 1s.; in all, 4s. 6d. from each visitor. It is discreditable to those who have the regulation of the establishment that the persons in attendance, after receiving these sufficient fees, are permitted to importune visitors for further gratuities. It is true these applications may be refused; but they are at any rate annoying, and as begging is a nuisance not permitted in our public streets, it ought not to be permitted here. Another thing deserves to be mentioned: if free admission into the body of the cathedral is to be refused to the public, the restriction can only be justified on the ground that it is necessary for the proper preservation of the monuments and other ornaments of the building. But the present appearance of many of the monuments seems to indicate that after a visitor has paid his twopenny for admission, it is considered a matter of indifference what mischief he may do to these works of art. Such parts of them as are within reach are at least scribbled all over with names and other impertinencies, if they are not more seriously disfigured and injured. The repetition of these wanton acts of destruction may even be said to be almost encouraged or invited by the marks made being allowed to remain without any attempt to remove them. If they cannot be rubbed or washed off, so much the more reason have we to deplore the negligence which allows them to be made.

It appears to us that the fact of the disfigurement of these monuments, under a system which affects to preserve them by making the people pay to see them, is conclusive as to the folly of such a system. If the doors of St. Paul's were thrown open, as they ought to be, and as York Minster is, those who turned aside from their daily avocations to gaze upon its lofty roofs and solemn aisles, and trophies of national renown, would be far too deeply inspired with the genius of the place to commit any wanton outrages or to permit others to commit them. It is the spirit of exclusion which has made the English people mischievous amidst works of art,—or, at any rate, which has brought upon them the accusation. We doubt if the English people are so. It is said that one of the statues in Westminster Abbey was defaced by a Westminster scholar; and that the said scholar, grown to the estate of authorship, reproached the English rabble for violating the sanctuary of the dead in the instance of this very statue.



[Interior of St. Paul's, looking East.]

* * The Supplement for May will consist of Hogarth's Industry and Idleness, Plates 1, 2, 3, 4.

* * The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.
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THE WOLF.



[Wolf Hunt, after a Picture by Snijders.]

THE essential characteristics of the common wolf may be thus described:—the tail straight; the hide of a greyish yellow, with a black oblique stripe on the fore-legs of those which are full grown, and the eyes oblique. The ancients had an opinion that the neck of the wolf was all of one solid bone; but we need not say that this is one of the many opinions by which their ignorance on points of very common knowledge is demonstrated. The average height of the wolf is about two feet six inches before, and two feet four inches behind; and the length of the body, from the tip of the muzzle to the beginning of the tail, three feet eight inches. The cubs of the wolf are born with the eyes shut; the female goes with young sixty-three days; in these respects exactly resembling the dog. The average duration of their life is from fifteen to twenty years.

The great resemblance between the wolf and the dog has been frequently remarked; and some naturalists consider them of the same species. The polar voyagers state, that they had often much difficulty to distinguish the dogs of the Esquimaux from the wolves; and yet, notwithstanding this external resemblance, there is a very essential difference in their characters, and the dog and the wolf are, in all circumstances, the natural foes of each other. Captain Parry, in the Journal of his Second Voyage, says, "A flock of thirteen wolves, the first yet seen, crossed the ice in the bay from the direction of the huts, and passed near the

ships. They so much resemble the Esquimaux dogs, that, had it not been for some doubts among the officers who had seen them, whether they were so or not, and the consequent fear of doing these poor people an irreparable injury, we might have killed most of them the same evening, for they came boldly to look for food within a few yards of the Fury, and remained there for some time." Again, he says in his Journal, a few days after, "These animals were so hungry and fearless as to take away some of the Esquimaux dogs in a snow-house near the Hecla's stern, though the men were at the time within a few yards of them." These dogs set up a fearful howl at the approach of a wolf; and, in speaking of the resemblance between the two, it should be mentioned that wolves have not the bark of a dog, but only a howl; and, as the Esquimaux dog also does not bark, this, and the other circumstances of close resemblance, have led to the conclusion that this animal is no other than a domesticated wolf.

The following passage in 'Sir A. de Capel Broke's Travels,' while it illustrates the enmity of the wolf to the dog, seems to show that the latter may be himself deceived by the resemblance to his own species. "I observed on setting out from Sornjöle, the last post, that the peasant who drove my sledge was armed with a cutlass; and, on inquiring the reason, was told that, the day preceding, while he was passing in his sledge the part of the forest we were then in, he had encountered a wolf, which was so daring that it actually sprang over

the hinder part of the sledge he was driving, and attempted to carry off a small dog which was sitting behind him. During my journey from Tornea to Stockholm, I heard every where of the ravages committed by wolves, not upon the human species or the cattle, but chiefly upon the peasants' dogs, considerable numbers of which had been devoured. I was told that these were the favourite prey of this animal; and that, in order to seize upon them with the greater ease, it puts itself into a crouching posture, and begins to play several antic tricks to attract the attention of the poor dog, which, caught by these seeming demonstrations of friendship, and fancying it to be one of his own species, from the similarity, advances towards it to join in the gambols, and is carried off by its treacherous enemy. Several peasants that I conversed with mentioned having been eye-witnesses of this circumstance." The animosity of the dog to the wolf does not seem inferior to that of the wolf to the dog. Associated in packs, and encouraged by them, dogs will chase the wolf with the most daring ardour, regardless of his greater physical strength. Our wood-cut represents a conflict of this nature, which was not uncommon in parts of Europe during the middle ages.

Wolves are cruel and cowardly animals, with a peculiarly sinister expression of countenance. They fly from man except when impelled by extreme hunger, when they prowl by night in great droves through villages, and destroy any persons they meet. It is said of them, as of several other beasts of prey, that when they have once obtained the taste of human blood, they give it the preference to any other. Very fearful accounts are on record of the ravages committed by wolves, when in hard weather they associate in immense flocks. So lately as 1766 such terror is said to have been excited in France by the ravages of wolves, that public prayers were offered for their destruction. The following statement from Captain Franklin shows the extreme cunning of the wolves in the pursuit of a creature of superior speed:—"We passed the remains of two red-deer, lying at the bases of perpendicular cliffs, from the summits of which they had probably been forced by wolves. These voracious animals, which are inferior in speed to the moose or red-deer, are said frequently to have recourse to this expedient, in places where extensive plains are bounded by precipitous cliffs. While the deer are quietly grazing, the wolves assemble in great numbers; and, forming a crescent, creep slowly towards the herd, so as not to alarm them much at first; but when they perceive that they have fairly hemmed in the unsuspecting creatures, and cut off their retreat across the plain, they move more quickly, and with hideous yells terrify their prey, and urge them to flight by the only open way, which is towards the precipice; appearing to know that, when the herd is once at full speed, it is easily driven over the cliff—the rearmost urging on those that are before. The wolves then descend at their leisure and feast on the mangled carcasses."

The gentleness of wolves in confinement seldom continues after they are full grown: they generally appear to acquire a fear instead of a love of man, which manifests itself in a morose and vindictive impatience. The cowardly ferocity of their natures is with difficulty restrained by discipline: they are not to be trusted. And yet there are instances of wolves having been domesticated to such an extent as to exhibit the greatest attachment to man—as great as can be shown by a dog. M. F. Cuvier gives a very interesting account of a tame wolf which had all the obedience towards and affection for his master, which the most sagacious and gentle of domestic dogs could possibly evince. He was brought up in the same manner as a puppy, and continued with his original owner till he was full grown. He

was then presented to the Menagerie at Paris. For many weeks he was quite disconsolate at the separation from his master, who had been obliged to travel; he would scarcely take any food, and was indifferent to his keepers. At length he became attached to those about him, and he seemed to have forgotten his old affections. His master returned after an absence of eighteen months: the wolf heard his voice amidst the crowd in the gardens of the menagerie, and, being set at liberty, displayed the most violent joy. Again was he separated from his friend; and again was his grief as extreme as on the first occasion. After three years' absence, his master once more returned. It was evening, and the wolf's den was shut up from any external observation; yet the instant the man's voice was heard, the faithful animal set up the most anxious cries; and the door of his cage being opened, he rushed towards his friend,—leaped upon his shoulders,—licked his face,—and threatened to bite his keepers when they attempted to separate them. When the man left him, he fell sick, and refused all food; and from the time of his recovery, which was long very doubtful, it was always dangerous for a stranger to approach him. He appeared as if he scorned any new friendships.

The wolf still continues to infest the northern regions of Europe, and those countries where dense forests are not yet cleared. It was extirpated much earlier in England than in any other country of Europe. Ancient chronicles state that, in the tenth century, King Edgar attempted to extirpate these animals in England by committing the punishments for certain crimes into the acceptance of a certain number of wolves' tongues from each criminal; and, in Wales, by converting the tax of gold and silver into an annual tribute of 800 wolves' heads. In after times their destruction was promoted by certain rewards, and some lands were held on condition of destroying the wolves which infested the parts of the kingdom in which they were situated. In 1281, these animals troubled several of the English counties, but after that period our records make no mention of them. The last wolf known in Scotland was killed in 1680, and in Ireland one was killed in 1701.

Most of the above facts are drawn from 'Menageries,' vol. i.

MUSIC.—(Continued.)

WE now come to our street music; and we beg leave to charge its goodness or badness, not upon the performers, but upon those who pay them, and who most clearly part with their money not to get rid of a nuisance, for that they all know would but bring it back again with interest, but because they have some satisfaction in hearing that for which they pay. And we would by no means wish to be harsh towards the performers themselves, who are but the index of the public taste, to which if an organ out of tune is perfectly satisfactory, the owner would be a mere spend-thrift if he paid his money for getting the pipes set in order.

That noise, in all its varieties, is a pleasant thing to the public ear, is proved by the fact that all large towns have a regular supply of street musicians, who make their country tours in the summer like other gentlemen. In London it is no exaggeration to say that every street, which is not a very public thoroughfare, has, during fine weather, a succession of musicians from morning till night. And in this system there must be considerable organization, (we mean no pun,) for we have observed that there is seldom more than one at a time, and that the performers seem to have their regular days for frequenting each street. For six months together, on one particular day of the week,—at

one particular hour of the day,—the same organ or Pau's pipe will station itself in one particular street, to play the very same airs, with the very same flourishes, and the very same faults of time and tune. That the instruments which we have personified must find their account in such a proceeding is obvious; for who will imagine that a fiddle or a flute would of its "own mere motion," as the king says in a charter, take such pains to make itself sure that A— Street, or B— Lane, should become well acquainted with 'Di tanti palpiti' or 'Blue Bonnets over the Border'?

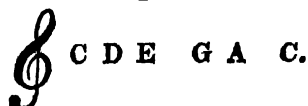
In the various parts of the metropolis we observe great differences of quality in the tone and execution of the instruments aforesaid, which would sufficiently prove, if we did not know the fact before, that street musicians, like all other traders, find themselves obliged to suit the taste of their customers. In the west end of the town, we have the higher class of performance (*comparatively speaking*): the harp, violoncello, and voice, are very often well managed, generally by foreigners. But as we approach the sun-rise, we find all gradations of badness, down to the organ—of which the only alleviation is that it has lost several of its pipes—and the miserable hurdy-gurdy, of which the use is (and everything has its use) to show that there may be something worse than the bag-pipes. As we are not writing to reform street abuses, we shall say no more on this subject, but proceed to point out some circumstances which corroborate the opinions expressed in the last paper.

No person with a cultivated ear will hesitate one moment to grant the assertion, that the greater part of our street music is out of tune. If the people, who pay for them, had any feeling of music, the hearing of such performances would be a state of pain, not of pleasure. We do not deny that they are pleased; it is that very fact which enables us to make out the truth of our opinion. Nor are we inclined to place the evil high among those of our social condition; there are certainly many worse things than a barrel-organ out of tune; all we say is this,—let music be of great or of little importance, still, in whatsoever degree it is desirable that a correct musical taste should be a part of our national character, and in whatsoever degree the contrary is a proof of want of refinement, in that same degree is it necessary to amend our musical habits; for in that same degree does the noise in our streets prove that we are not a refined nation in such matters.

But it may be said, the national ear is dull, and that is the end of it;—how can we expect a people who have no ear for music to give themselves that which nature has refused them? We deny that any people is musical by nature, in the sense above implied, that is, we deny that we have experience of any uncultivated people who have, while in their uncivilized state, constructed any of those airs which they have retained with pleasure during their progress towards refinement. Let us take the instance of the Scotch and Irish, whose national airs are full of the highest pathos. With regard to the former we have no proof that their airs were composed while they were in a rude state. It is well known that in Ireland the national condition, previous to the Conquest, was one of considerable civilization;—even their instrument, the harp, never was found in the hands of savages. Certainly, a stretched string has been employed to make a note in many countries, but we rarely read of airs being played upon a harp, guitar, or such an instrument, in any country which had not made some progress in the arts of life. It is said that the Goths had a harp, but we do not know whether it deserved the name. The Greeks paid much attention to the lyre without any lasting results. With regard to the Scotch music, we avail ourselves of a note to Walter Scott's 'Lord of the Isles,'

who, having given pipes and bugles to the army of Robert Bruce in verse, seems to doubt in prose whether there was at that time any martial music. He quotes Ritson, who "quotes Froissart's account of each soldier in the host bearing a little horn, on which, at the onset, they would make such a horrible noise as if all the devils of hell had been amongst them. He observes that these horns are the only music mentioned by Barbour; and concludes, that it must remain a mooted point, whether Bruce's army were cheered by the sound even of a solitary bag-pipe." We need hardly observe, that no air could be played upon a *little* horn unless it had keys. But though instruments were not invented, might not the voice have preceded them? And has it not been asserted that all instruments are formed upon the voice as a model? It has been so maintained; but it has also been replied, on the other hand, that the voice has followed the instruments, and has never made any step in advance of them. It is said to be verified by experience, that no savage nation attempts to sing more than their drums or flutes teach them,—that in Owhyhee and Nootka Sound, their nasal flute has but three semitones, which are all that they use in their vocal scale. It is known that even a cultivated ear learns habits from instruments. Let any man take to an imperfect flute or oboe, and he will find, after a time, that his ear relishes the faults which it has been taught, and that the usual intervals appear erroneous. We have even heard an instance in which a performer of great skill imagined (probably from some peculiar habit in fingering) that the intervals in one key differed in magnitude from those in another.

But there is a ground on which we feel inclined to suspect that music is the native growth of very few countries indeed, perhaps only of one; and that, like arithmetic and geometry, it is not a necessary consequence of human association. There is a musical scale which prevails extensively, and in different parts of the world. Its peculiarity is the absence of the fourth and seventh of the diatonic scale, giving, in the key of c, only the following notes:—



The black keys of a piano furnish such a scale in the key of c sharp. It is the almost entire absence of these fourth and seventh notes which gives the peculiar character of Scotch music; and which has caused it to be said that a cat running over the black keys of the piano, would play a Scotch tune. Hence it is that so many travellers have found music which bore a strong resemblance to the Scotch. This scale has been found in China, India, Java and the islands, Morocco, Kurdistan, Italy, Scotland, Ireland, Wales, and Cornwall. There may then be this alternative—if the defective scale be natural, our countrymen cannot be incapable of musical cultivation, for they have acquired the artificial fourth and seventh. If this scale be not natural, then we have a right to suspect that many nations have nothing in music but what they have borrowed, and that we ourselves may surely follow a process similar to that which has succeeded with others.

We do not think we have said enough to establish any thing, but only to throw upon those who say we are not musical by nature the necessity of showing by fair presumption that there is any such thing as a nation which is so.

To return to street music.—There is an unfortunate instrument, the playing upon which comes by nature. Of course we mean the barrel-organ. This yields perhaps not less than two-fifths of the music which is actually heard by the majority of our countrymen in towns and cities. Let such an estimation surprise no

one. Say that one-seventh of the whole is heard at church or meeting, which is a very fair proportion. There remains then six-sevenths to be accounted for. Now take in all the orchestras, concerts, private pianos and harps, &c., and consider how small a part of the whole mass has any thing to do with these. Remember, also, that whatever instrumental music exists among the lower orders is formed upon no better model than the street music, and may fairly be reckoned with it. Say then, that so much as two-sevenths of the whole is to be allowed for orchestras, &c., as above-mentioned: there remains four-sevenths for street music, &c.,—by much the major part of which is ground from barrels, so that our estimate of two-fifths for mere barrels is probably near the mark.

In this national instrument, as we must begin to call it (for its use is comparatively rare on the Continent), there are two very great defects, which are of themselves enough to produce a pernicious effect, musically speaking, on those who hear it often. In the first place there is no *expression* whatsoever. Our unmusical readers will not know what this word means, but we can only tell them that it answers to feeling of the subject in reading or speaking. What is it that makes the difference between the muttering of an indictment in the mouth of the clerk of the court, and the emphatic charge of the judge, which keeps all eyes upon him, or turns them in a moment upon the jury or upon the prisoner, just as he pleases? It is just that difference which in music is called *expression*. It is what all men can feel when they hear it, but none can describe. It always succeeds: we have seen a street blocked up by the crowd which assembled,—in perfect silence,—round nothing more than a harp accompanied by a Pan's pipe, both instruments admitting of expression; and which, added to perfect tune, produced the unusual phenomenon just mentioned. But the barrel-organ, and all organs whatsoever, are deficient in this primary attribute of good music. So long as it shall form as large a part as it now does of what is commonly heard, there can be little hope of realizing any real feeling of the beautiful airs which are spoiled upon it.

The mechanical part of the Apollonicon is a perfect orchestra, except only in expression. The second defect of the organ consists in this, that owing, we suppose, to the nature of the instrument, and in a manner depending upon the size of the barrel and the limited number of pipes, many airs must be altered before they can be set. Thus chromatic music must be avoided, or adapted by the taste of some inferior head before it can parade the streets. And what is even worse, the barrel is something like the bed of Procrustes, to the length of which the unfortunate traveller was cut short or lengthened out, according to his stature. The air must end in time to begin again, so that we frequently hear a cadence dictated, not by the composer, or even by the spirit of the composition, but by the number of inches, be they more or less, which must be filled up. Until the great masters can be brought to write by the foot, this cannot be avoided—at least in charity to the organ maker, we so presume. We know but little of the comparative anatomy of the noxious animal which so often quickens our pace as we walk the street, but if our explanation be not correct, we leave upon the reader the task of proving that they are not the cause of the trouble of all the followers of the muses.

We hold it perfectly hopeless to attempt any amelioration of this street system at present. So long as people can be found to be pleased with it and pay for it, it will last. But if by any means whatsoever the art could be so far encouraged among our labourers and mechanics, that only one-tenth of them should arrive at singing a common air from written music,

we should not despair of any result, however distant a state it might indicate from that which at present exists. We make no apology for insisting upon the matter as having some degree of importance. We address ourselves to those who like music enough to think that a fine opera is as pleasant a thing to the ear as a fine painting to the eye, and will not laugh at its being supposed that if a national taste for design be desirable, a national taste for music is also worth some cultivation. We do not know whether the cultivation of the fine arts is the cause or the effect of civilization: if the first, no more need be said in its favour; if the second, it is worth ascertaining whether we cannot endeavour to show the rest of Europe that we are as refined as our neighbours.

Youth is the time in which modesty and enterprise ought chiefly to be found; modesty suits well with inexperience, and enterprise with health and vigour and an extensive prospect of life.—*Johnson*.

This is well to be weighed: that boldness is ever blind, for it seeth not dangers and inconveniences; therefore it is ill in counsel, but good in execution; for in counsel it is good to see dangers, and in execution not to see them, except they be very great.

Some in their discourse desire rather commendation of wit, in being able to hold all arguments, than of judgment in discerning what is right; as if it were a praise to know what must be said, and not what should be thought.

It is a strange thing to behold what gross errors and extreme absurdities men do commit for want of a friend to tell them of them. The help of good counsel is that which setteth business straight.—*Bacon*.

Chinese Barbers.—The barbers, in the towns of China, go about ringing bells to get customers. They carry with them a stool, a basin, a towel, and a pot containing fire. When any person calls them, they run to him; and, planting their stool in a convenient place in the street, shave the head, clean the ears, dress the eyebrows, and brush the shoulders;—all for the value of little more than a halfpenny. They then ring the bell again, and start in pursuit of another customer.

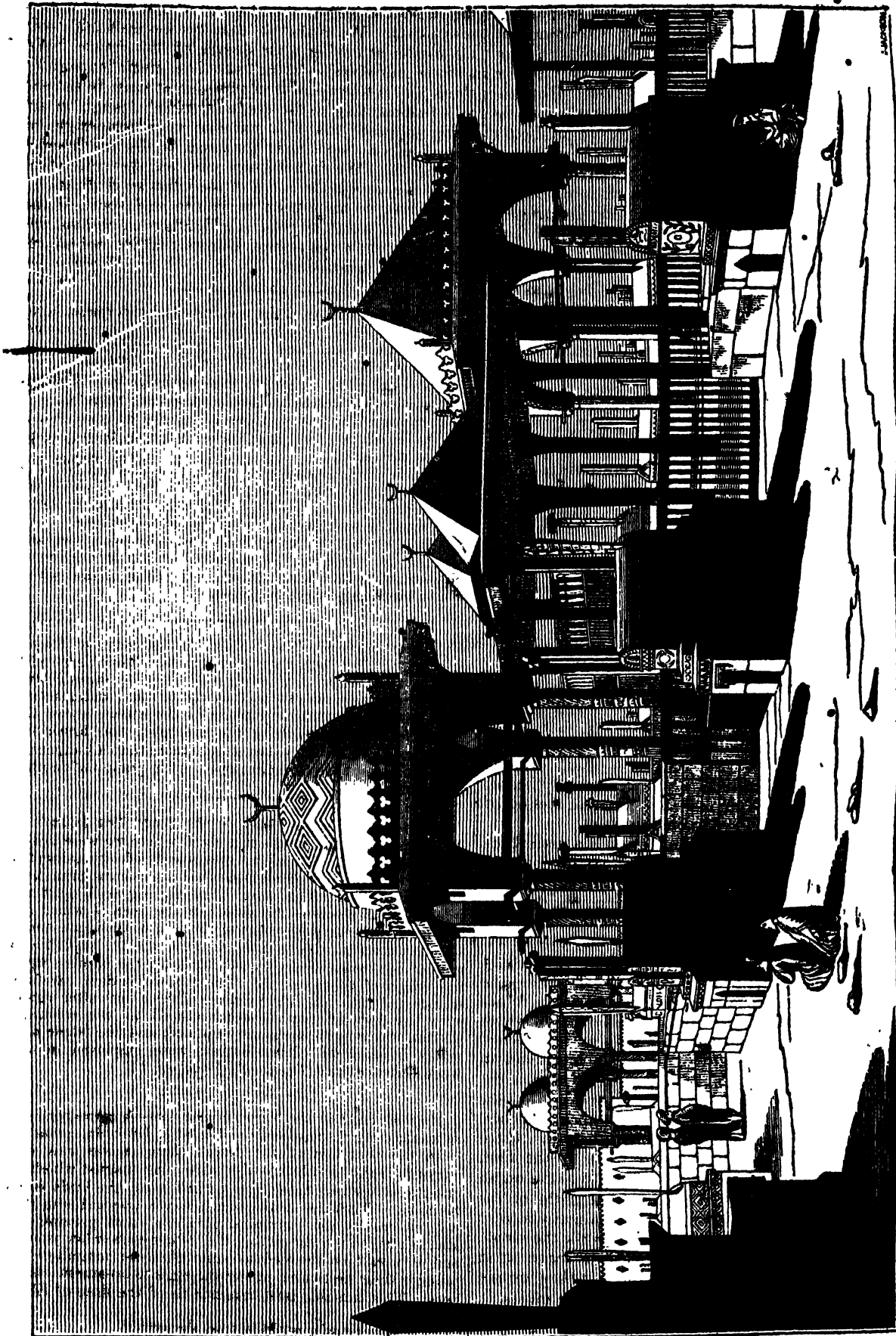
Manner of printing Cloth in the South Sea Islands.—At one place, in the house of a chief where we were hospitably entertained, we had an opportunity of witnessing the method of printing flowers and other ornamental figures on the native cloth. The design is neatly engraved upon the sides of thin pieces of bamboo, into the lines of which the colour is introduced by dipping them into cocoa-nut shells which contain the dye in a liquid state, and the superfluous matter is thrown off by smartly striking the bamboo upon the edges of these vessels. The pattern is then carefully transferred to the cloth by pressure of the hand; after which, with the fibre of the cocoa-nut dipped in the colouring matter, any imperfections are supplied, and the whole delicately finished off. Four women were employed in this work.—*Bennet and Tyerman's Voyages*.

Amiable trait in the Negro character.—A correspondent, in mentioning the birds of the Island of Grenada, remarks.—In the character of the Negro there is one trait that ought to make us blush,—the particular disgust which he entertains towards those who disturb or rob the birds while breeding. They are consequently never pursued with that wanton cruelty and unnatural pleasure which prompts the English boy to rob the mother bird of her eggs or her young; and it would be deemed a crime of some magnitude to plunder their nests and string the eggs to ornament chambers. This amiable trait reminds us of the lines of Shensone:—

"For he ne'er would be true, she aver'd,
Who could rob a poor bird of its young;
And I loved her the more when I heard
Such tenderness fall from her tongue."

In return for this exemption from molestation, the birds exhibit so much confidence in man, that they often build their nests in the houses and rooms of the Negroes.

CEMETERIES.



Cemetery at Grand C

THE peculiar customs and modes of thought of various nations are in no respect more strikingly exhibited than in their different methods of disposing of the bodies of the dead. All nations do something towards their speedy destruction or removal. The mode of effecting this is varied by the peculiar manners or prejudices of

almost every nation. In some parts the dead are thrown over precipices, or abandoned in the deserts, woods, or ditches, to the hunger of wild beasts and vultures; and, in others, they are consigned to the rivers or the seas, and become the prey of fishes. In the East Indies they are dried by fire, and then enveloped

in cloths and deposited in the earth. In other parts of the same country, the fire is suffered to consume the corpse altogether. The Parsees have two cemeteries, one white and the other black; in the one they bury those who have lived in the constant practice of virtue, and consign to the other those whose life has not been without reproach.

The various practices of the natives of America would alone form a very interesting enumeration. We can only mention the following. The Arraques, who inhabit the south of the Orinoco, suspend the corpse in its cabin until time has consumed the flesh; they then reduce the bones to a powder, which they mingle with their drink; or they burn the body, and make the same use of the ashes. The Abipones of South America generally inter the dead under the shade of a tree; and when a chief or warrior dies, they kill his horses on the grave. After a time the remains are exhumed, and conveyed to a place more secret and distant than the first. Some tribes make skeletons of all the dead, and place them, in a sitting posture, clothed with robes and feathers, in the cemetery, which is opened every year, and the skeletons cleansed and clothed anew. Most of the tribes of the American continent strongly manifest the desire that their own bones, and those of their fathers, should rest in the land of their nativity. When the nomade tribes of South America wander many hundred miles from their proper boundaries, and one of their number happens to die, they reduce the body to a skeleton, which they place on the favourite horse of the deceased, and carry it with them till they arrive at the place of his family, however distant. It seems, indeed, that the different tribes are attached to particular districts, chiefly by the circumstance that the bones of their fathers are buried there. We remember to have been much struck by reading that a North American chief indicated his aversion to a proposal for a cession of territory to the white man, by asking, "Shall we say unto the bones of our fathers, Arise, and go into another land?" In many tribes, when the encroachments of the white men drive them from their ancient domains, they exhume and take with them the bones of their ancestors and friends.

In early times the Assyrians and Babylonians covered the dead with wax previous to interment. The Egyptians held the consoling doctrine of the immortality of the soul,—or rather connected its existence with the duration of the body, which they therefore embalmed, and preserved with great care in the houses, or in the catacombs devoted to this purpose.

In all these different modes of expressing respect for the departed, the principle appears to be the same, and may be traced in the most ancient institutions. In periods the most remote, cemeteries are found to have been set apart by the laws, and sanctioned by religion. The Jews had their funeral-fields. Their first care on arriving in a new country, was to select a spot for their sepulchres. Each city had its public cemetery without the walls. That of Jerusalem was in the valley of Cedron; and, not far from that of the Pharisees, was a distinct one for strangers. The Greeks, before they adopted the Phrygian custom of burning the dead, interred them in the fields, and afterwards continued to make use of cemeteries, where they deposited the urns which enclosed the ashes of the dead. We may remark that the wholesome custom of depositing the dead at some distance from the abodes of the living prevails among all people except those of Christendom. They only, the most enlightened, have been unable, until of late, to perceive the evils of the opposite practice. This is a subject of serious importance and of much interest, to which we shall return in a future Number. In the meantime we shall proceed to describe the cemeteries of the Turks.

Our wood-cut represents a very fine specimen of the superior class of Turkish cemeteries, and is one of several appropriated at Cairo, in Egypt, to the interment of opulent families. They are most of them, like this, remarkable for their magnificence, if not for their taste, of which the engraving will better enable the reader to judge than any written description. It may suffice to state, that the profuse display of sculptured marble, gilding, and brilliant colours, combine to strike very forcibly a stranger when he first enters the gates. The pillars are usually charged with Arabic inscriptions; and the interior of the cupolas are ornamented with sculptures in relief. The graves are in all cases constructed and ornamented on much the same principle, independently of the enriched superstructure which appears in the sepulchres of the sanctified and the opulent. We may therefore describe them here, while we reserve for a future Number some account of the more public burial-grounds in which they also appear. The grave is usually covered with large, rounded stones, so that it is not unlike a coffin with a convex lid; but, in some parts, this is composed of three or four receding stages, having on the top a space corresponding with the dimensions of the body deposited below. At both ends, tall stones are placed perpendicularly. These usually taper towards the ground, and that at the head is surmounted by a sculptured turban, such as the deceased usually wore, and by which the situation in life which he occupied may be easily distinguished even by those who are unable to read, since in that country almost every profession and employment has its distinctive head-dress. The inner surfaces of the stones, which are always flat, are covered with inscriptions in high relief, the letters of which are well executed, and frequently painted over or gilded. For Seyds, and other persons of reputed sanctity, the letters are commonly painted black on a green ground, green being the holy colour of Mahomed; and on the grave-stones of those who died in early youth, their innocence is supposed to be indicated by the letters being gilt on a white ground. The burdens of the inscribed surface, the edges of the stones, and their outer surface, are generally painted with very vivid colours, and resplendent with gilding. It is curious that the sculptured parts of these stones are much superior to the painted. The painting usually represents flowers, pine-apples, clusters of grapes, or the principal implements of the particular business which the deceased followed. Among the Turks, the honourable circumstance of decapitation by the sultan's order is commemorated by an attempt to represent the deceased, in painting or low relief, with his head under his right arm. Christians, in indicating the same fact, are obliged to place the head between the legs. The Moslems carefully keep up, even after death, the pultry external distinctions between themselves and others which they so carefully assert during life. None but Turks are allowed to have the cypress in their cemeteries. Christians may plant any other trees; but the Jews are allowed none. Again, Christians are not allowed to have perpendicular grave-stones, but they may and do raise decent oblong masses of masonry to support the inscribed horizontal slab, which the Jews are obliged to lay on the ground.

THE LOSS OF THE ROYAL GEORGE.

We are enabled, through the kindness of a correspondent, to present our readers with an extremely curious and interesting paper,—a Narrative of the Loss of the Royal George, by Mr. James Ingram, who was on board her at the time of this fearful calamity. Our correspondent says, "Mr. Ingram is a very respectable and intelligent man, who lives and has lived for many

years at Woodford, a village exactly midway between Gloucester and Bristol. This statement is given exactly in his own words, except that I occasionally asked a question where explanation appeared to be necessary."

The Royal George was a ship of one hundred guns. Originally her guns had been all brass, but when she was docked at Plymouth, either in the spring of 1782 or the year before, the brass forty-two pounders on her lower gun-deck were taken out of her as being too heavy, and iron thirty-two pounders put there in their stead: so that after that she carried brass twenty-four pounders on her main-deck, quarter-deck, and poop, brass thirty-two pounders on her middle-deck, and iron thirty-two pounders on her lower-deck. She did not carry any carronades. She measured sixty-six feet from the keelson to the taffrail; and, being a flag-ship, her lanterns were so big, that the men used to go into them to clean them.

In August, 1782, the Royal George had come to Spit-head. She was in a very complete state, with hardly any leakage, so that there was no occasion for the pumps to be touched oftener than once in every three or four days. By the 19th of August she had got six months' provision on board, and also many tons of shot. The ship had her gallants up, the blue flag of Admiral Kempenfelt was flying at the mizen, and the ensign was hoisted on the ensign-staff,—and she was in about two days to have sailed to join the grand fleet in the Mediterranean. It was ascertained that the water-cock must be taken out and a new one put in. The water-cock is something like the tap of a barrel,—it is in the hold of the ship on the starboard side, and at that part of the ship called the well. By turning a thing which is inside the ship, the sea-water is let into a cistern in the hold, and it is from that pumped up to wash the decks. In some ships the water is drawn up the side in buckets, and there is no water-cock. To get out the old water-cock it was necessary to make the ship heel so much on her larboard side as to raise the outside of this water-cock above water. This was done at about 8 o'clock on the morning of the 19th of August. To do it the whole of the guns on the larboard side were run out as far as they would go, quite to the breasts of the guns, and the starboard guns drawn in a midship and secured by tackles, two to every gun, one on each side the gun. This brought the water nearly on a level with the port-holes of the larboard side of the lower gun-deck. The men were working at this water-cock on the outside of the ship for near an hour, the ship remaining all on one side as I have stated.

At about 9 o'clock A.M., or rather before, we had just finished our breakfast, and the last lighter, with rum on board, had come alongside: this vessel was a sloop of about fifty tons, and belonged to three brothers, who used her to carry things on board the men-of-war. She was lashed to the larboard side of the Royal George, and we were piped to clear the lighter and get the rum out of her, and stow it in the hold of the Royal George. I was in the waist of our ship, on the larboard side, bearing the rum-casks over, as some men of the Royal George were aboard the sloop to sling them.

At first no danger was apprehended from the ship being on one side, although the water kept dashing in at the port-holes at every wave; and there being mice in the lower part of the ship, which were disturbed by the water which dashed in, they were hunted in the water by the men, and there had been a rare game going on. However, by about 9 o'clock the additional quantity of rum on board the ship, and also the quantity of sea-water which had dashed in through the port-holes, brought the larboard port-holes of the lower gun-deck nearly level with the sea.

As soon as that was the case, the carpenter went on the quarter-deck to the lieutenant of the watch, to ask

him to give orders to right ship, as the ship could not bear it. However, the lieutenant made him a very short answer, and the carpenter then went below. The captain's name was Waghorn. He was on board, but where he was I do not know;—however, captains, if anything is to be done when the ship is in harbour, seldom interfere, but leave it all to the officer of the watch. The lieutenant was, if I remember right, the third lieutenant; he had not joined us long; his name I do not recollect; he was a good-sized man, between thirty and forty years of age. The men called him "Jib-and-Foresail Jack," for, if he had the watch in the night, he would be always bothering the men to alter the sails, and it was "up jib" and "down jib," and "up foresail" and "down foresail," every minute. However, the men considered him more of a troublesome officer than a good one; and, from a habit he had of moving his fingers about when walking the quarter-deck, the men said he was an organ-player from London, but I have no reason to know that that was the case. The admiral was either in his cabin or in his steerage, I do not know which; and the barber, who had been to shave him, had just left. The admiral was a man upwards of seventy years of age; he was a thin tall man, who stooped a good deal.

As I have already stated, the carpenter left the quarter-deck and went below. In a very short time he came up again, and asked the lieutenant of the watch to right ship, and said again that the ship could not bear it; but the lieutenant replied, "D—e, sir, if you can manage the ship better than I can, you had better take the command." Myself and a good many more were at the waist of the ship and at the gangways, and heard what passed, as we knew the danger, and began to feel aggrieved, for there were some capital seamen aboard, who knew what they were about quite as well or better than the officers.

In a very short time, in a minute or two I should think, the lieutenant ordered the drummer to be called to beat to right ship. The drummer was called in a moment, and the ship was then just beginning to sink. I jumped off the gangway as soon as the drummer was called. There was no time for him to beat his drum, and I don't know that he even had time to get it. I ran down to my station, and, by the time I had got there, the men were tumbling down the hatchways one over another to get to their stations as quick as possible to right ship. My station was at the third gun from the head of the ship on the starboard side of the lower gun-deck, close by where the cable passed, indeed it was just abaft the light of the cable. I said to the lieutenant of our gun, whose name was Carrell, for every gun has a captain and lieutenant (though they are only sailors), "Let us try to bouse our gun out without waiting for the drum, as it will help to right ship." We pushed the gun, but it ran back upon us, and we could not start him. The water then rushed in at nearly all the port-holes of the larboard side of the lower gun-deck, and I directly said to Carrell, "Ned, lay hold of the ring-bolt and jump out at the port-hole; the ship is sinking, and we shall be all drowned." He laid hold of the ring-bolt, and jumped out at the port-hole into the sea: I believe he was drowned, for I never saw him afterwards. I immediately got out at the same port-hole, which was the third from the head of the ship on the starboard side of the lower gun-deck, and when I had done so, I saw the port-hole as full of heads as it could cram, all trying to get out. I caught hold of the best bower-anchor, which was just above me, to prevent falling back again into the port-hole, and seized hold of a woman who was trying to get out at that same port-hole,—I dragged her out. The ship was full of Jews, women, and people selling all sorts of things. I threw the woman from me,—and saw all the

heads drop-back again in at the port-hole, for the ship had got so much on her larboard side, that the starboard port-holes were as upright as if the men had tried to get out of the top of a chimney with nothing for their legs and feet to act upon. I threw the woman from me, and just after that moment the air that was between decks drafted out at the port-holes very swiftly. It was quite a huff of wind, and it blew my hat off, for I had all my clothes on, including my hat. The ship then sunk in a moment. I tried to swim, but I could not swim a morsel, although I plunged as hard as I could both hands and feet. The sinking of the ship drew me down so,—indeed I think I must have gone down within a yard as low as the ship did. When the ship touched the bottom, the water boiled up a great deal, and then I felt that I could swim, and began to rise.

When I was about half way up to the top of the water, I put my right hand on the head of a man that was nearly exhausted. He wore long hair, as many of the men at that time did; he tried to grapple me, and he put his four fingers into my right shoe alongside the outer edge of my foot. I succeeded in kicking my shoe off, and, putting my hand on his shoulder, I shoved him away,—I then rose to the surface of the water.

At the time the ship was sinking, there was a barrel of tar on the starboard side of her deck, and that had rolled to the larboard and staved as the ship went down, and when I rose to the top of the water the tar was floating like fat on the top of a boiler. I got the tar about my hair and face, but I struck it away as well as I could, and when my head came above water I heard the cannon ashore firing for distress. I looked about me, and at the distance of eight or ten yards from me I saw the main topsail halyard block above water;—the water was about thirteen fathoms deep, and at that time the tide was coming in. I swam to the main topsail halyard block, got on it, and sat upon it, and there I rode. The fore, main, and mizen tops were all above water, as were a part of the bowsprit and part of the ensign-staff, with the ensign upon it.

In going down, the main yard of the Royal George caught the boom of the rum-lighter and sunk her, and there is no doubt that this made the Royal George more upright in the water when sunk than she otherwise would have been, as she did not lie much more on her beam ends than small vessels often do when left dry on a bank of mud.

When I got on the main topsail halyard block I saw the admiral's baker in the shrouds of the mizen-top-mast, and directly after that the woman whom I had pulled out of the port-hole came rolling by: I said to the baker, who was an Irishman named Robert Cleary, "Bob, reach out your hand and catch hold of that woman;—that is a woman I pulled out at the port-hole. I dare say she is not dead." He said "I dare say she is dead enough; it is of no use to catch hold of her." I replied, "I dare say she is not dead." He caught hold of the woman and hung her head over one of the ratlines of the mizen shrouds, and there she hung by her chin, which was hitched over the ratlin, but a surf came and knocked her backwards, and away she went rolling over and over. A captain of a frigate which was lying at Spithead came up in a boat as fast as he could. I dashed out my left hand in a direction towards the woman as a sign to him. He saw it, and saw the woman. His men left off rowing, and they pulled the woman aboard their boat and laid her on one of the thwarts. The captain of the frigate called out to me, "My man, I must take care of those that are in more danger than you." I said "I am safely moored now, Sir." There was a seaman named Hibbs hanging by his two hands from the main-stay; his name was Abel Hibbs, but he was called Monny, and as he hung from the main-stay the sea washed over him

every now and then as much as a yard deep over his head, and when he saw it coming he roared out: however, he was but a fool for that, for if he had kept himself quiet he would not have wasted his strength, and would have been able to take the chance of holding on so much the longer. The captain of the frigate had his boat rowed to the main-stay, but they got the stay over part of the head of the boat and were in great danger before they got Hibbs on board. The captain of the frigate then got all the men that were in the different parts of the rigging, including myself and the baker, into his boat and took us on board the Victory, where the doctors recovered the woman, but she was very ill for three or four days. On board the Victory I saw the body of the carpenter, lying on the hearth before the galley fire; some women were trying to recover him, but he was quite dead.

The captain of the Royal George, who could not swim, was picked up and saved by one of our own men. The lieutenant of the watch, I believe, was drowned. The number of persons who lost their lives I cannot state with any degree of accuracy, because of there being so many Jews, women, and other persons on board who did not belong to the ship. The complement of the ship was nominally 1000 men, but it was not full. Some were ashore, and sixty marines had gone ashore that morning.

The government allowed 5*l.* each to the seamen who were on board, and not drowned, for the loss of their things. I saw the list, and there were only seventy-five. A vast number of the best of the men were in the hold stowing away the rum-casks: they must all have perished, and so must many of the men who were stinging the casks in the sloop. Two of the three brothers belonging to the sloop perished, and the other was saved. I have no doubt that the men caught hold of each other, forty or fifty together, and drowned one another—those who could not swim catching hold of those who could; and there is also little doubt that as many got into the launch as could cram into her, hoping to save themselves in that way, and went down in her all together.

In a few days after the Royal George sunk, bodies would come up, thirty or forty nearly at a time. A body would rise, and come up so suddenly as to frighten any one. The watermen, there is no doubt, made a good thing of it: they took from the bodies of the men their buckles, money, and watches, and then made fast a rope to their heels and towed them to land.

The water-cock ought to have been put to rights before the immense quantity of shot was put on board; but if the lieutenant of the watch had given the order to right ship a couple of minutes earlier, when the carpenter first spoke to him, nothing amiss would have happened; as three or four men at each tackle of the starboard guns would very soon have boused the guns all out, and have righted the ship. At the time this happened, the Royal George was anchored by two anchors from the head. The wind was rather from the north-west,—not much of it,—only a bit of a breeze; and there was no sudden gust or puff of wind which made her heel just before she sunk; it was the weight of metal and the water which had dashed in through the port-holes which sunk her, and not the effect of the wind upon her. Indeed I do not recollect that she had even what is called a stitch of canvass, to keep her head steady as she lay at anchor.

I am now seventy-five years of age, and was about twenty-four when this happened.

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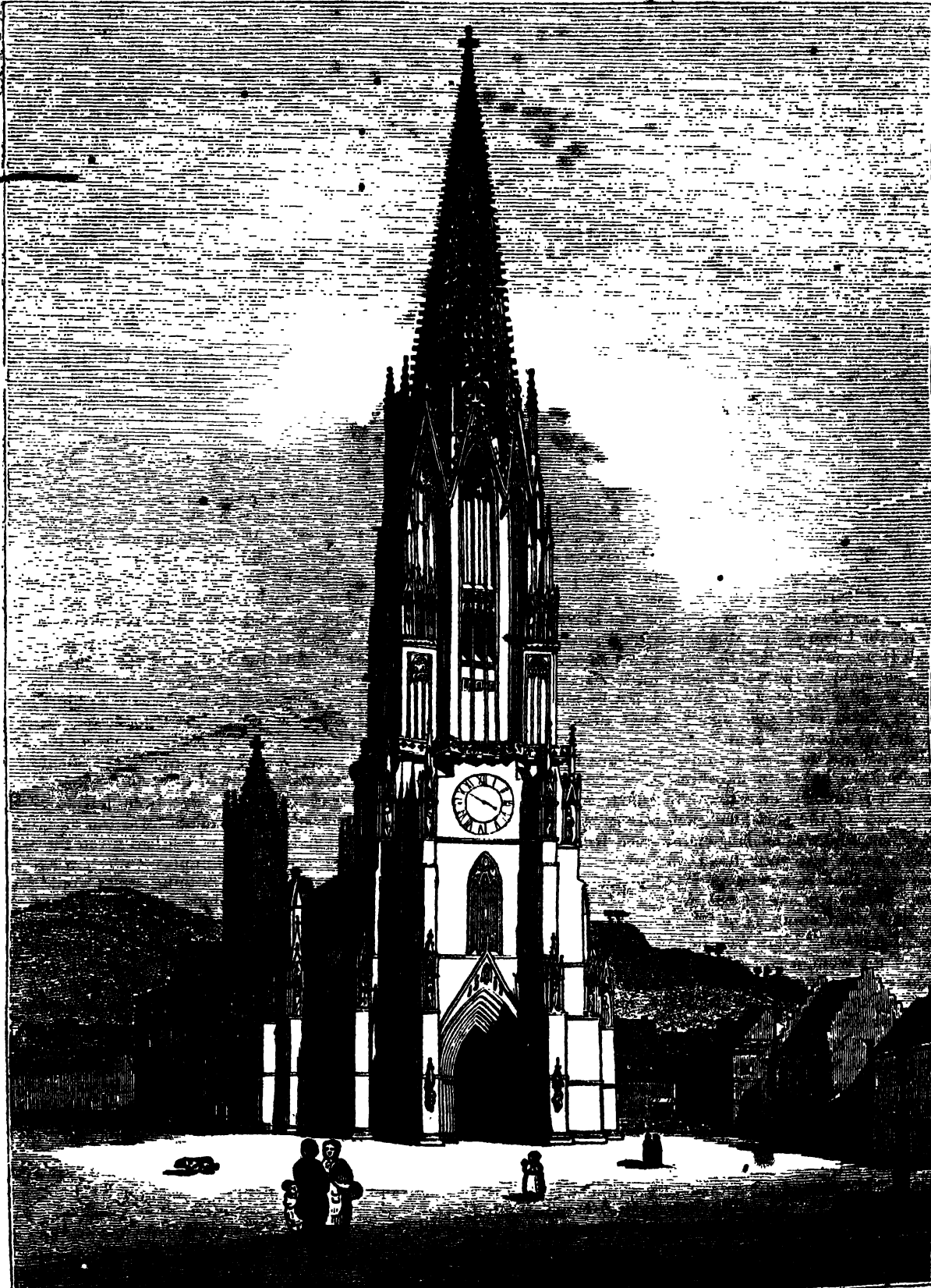
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FREIBURG.



[Minster of Freiburg.]

FREIBURG is a town which was formerly the capital of the mountainous and woody district of Brisgau, and now the chief place of the circle of Treisam in the grand-duchy of Baden. It is situated on the right bank of the river Treisam, at the foot of a mountain, at the entrance of the Black Forest by the great road leading from the Rhine. The town is not of high antiquity. It was originally a village occupied by the workmen in the neighbouring mines, the produce of which furnished the means for the foundation of the city and the erection of the churches and monasteries by which it is still adorned. As a city, it was founded in the year 1180, by Berchtold III., Duke of Zaringen, from whose descendants it passed to the counts of Fürstenberg, with whom it had many disputes on account of its privileges. Much bad feeling was in consequence engendered between the parties, and blood was shed in the quarrel; but, at last, Count Egon was induced (in the year 1386) to come to an arrangement, by which, for the consideration of 20,000 marks of silver, he conceded to the town the freedom it desired, and transferred his reserved rights, as we understand this rather complicated transaction, to his cousin the Prince of Austria, by whom the above sum was advanced. The town was thenceforth called Freiburg or Free-town. In the course of its history, we learn that it was strongly fortified, and stood repeated sieges before 1744, when it was taken and dismantled by the French. It was again taken by them in 1796; and was ultimately, with the district of Brisgau, ceded to Baden by Austria, at the peace of Presburg in 1805.

Freiburg is described as a very lively and open city. The streets are wide, well paved, and traversed by streams of clear water; the houses are good; and the town is well furnished with fountains, hotels, and public buildings. The population is at present about 10,000. The principal objects of industry are the manufacture of cloths, tobacco, coffee, paper, sealing-wax, red morocco leather, and watches; there are also some foundries of bells. The commerce of the place is very inconsiderable. Freiburg contains two public places, or markets; two Catholic and two Protestant churches; three convents; two hospitals, civil and military, besides a foundling hospital; a public office for the loan of money on goods; one prison; and a house of correction. From 1456 this town has possessed a university of much celebrity, with which is connected a fine library, a collection of philosophical and mathematical instruments, a botanic garden, a theatre of anatomy, where the means of clinical instruction in medicine and surgery are afforded. This university boasts some eminent men among its professors, and, notwithstanding the disadvantage of being near Tübingen, it had 600 students in 1825, and this number has since been much increased. Such an establishment is highly creditable to so small a country as Baden, which also contains the university of Heidelberg. Freiburg has likewise a gymnasium, a normal school, and a museum; and a society has lately been formed, the object of which is to promote the study of statistics and of antiquities, and to preserve the monuments and objects of art which the country contains. Upon a mountain, called Schönberg, in the neighbourhood of the town, has been discovered a large number of tombs containing arms and trinkets, which have the appearance of being of very remote antiquity.

The Minister of Freiburg, which is represented in our wood-cut, is a very magnificent structure. The tower is much admired as one of the finest and most complete Gothic steeples extant. It is no less remarkable for its height than for its beautiful figure and fine workmanship,—the structure being from the foundation to the summit composed of ornamented and sculptured stones. Its elevation is variously stated,

some accounts representing it to be 513 feet,—which is 19 feet higher than that of Strasburg. We have not been able to learn the precise date of its erection.

GLASS.

The period of the invention of glass is quite unknown. The usual story of its origin is taken from Pliny, who relates that some merchants, who were driven by a storm to the coast of Phœnicia, near the river Belus, made a large fire on the sand to dress their food, using as fuel some plants that grew near: when an imperfect glass was formed by the melting together of the sand and ashes. This production was accidentally picked up by a Tyrian merchant, who, from its beauty and probable utility, was led to investigate its origin; and who, after many attempts, succeeded in its manufacture. The legend most probably originated in the circumstance that glass was very early made at Tyre, and that the sand on the sea-shore in the immediate neighbourhood of the Belus is very white and crystalline, and well adapted to glass-making. It is certainly probable that an accidental vitrification might give rise to the discovery; but that was much more likely to take place in some operation requiring a great fire than by dressing food on the open sand.

Although the most ancient manufactures of glass on record were at Tyre, it is certain that the art was known to the Egyptians. Small pieces of blue glass, resembling turquoise, have been recently discovered in ancient tombs at Thebes, which were probably used in glazing the earthenware beads often found adorning mummies, and which have been erroneously cited as made of glass.

In far later times than any to which the tombs of Thebes can be referred, glass was made at Alexandria, and was supplied from that city to the Romans at least as late as the reign of Hadrian. The manufacture had been introduced at Rome, where the glass-makers had a particular street assigned to them. There can be little doubt that the art made some progress there, although we may reasonably doubt the story of malleable glass, for the invention of which Tiberius is said to have rewarded an artist with death. Its principal use was at that time in the making of bottles and ornamental vases, in which the skill of the workman appears to have been very great, as may be seen in specimens at the British Museum, though the "metal," as the mass of glass is called by the trade, is usually thick and coloured. We have no testimony that it was used in glazing windows previous to that of Lactantius, in the beginning of the fourth century, who compared a penetrating mind to one looking through a glass window.

The art is said to have been known to the ancient Britons before the coming of the Romans;—the supposed Druidical rings occasionally picked up, and believed to be a source or token of good luck to the finder, have been often mentioned; and, if genuine, they afford a proof that the art must have made considerable progress among the ancient inhabitants of our island. The Romans may have added some improvements during their long residence here, but the arrival of the Saxons destroyed this and almost every other mark of civilization in Britain. About two centuries after this event, glass was again imported as an ornament to churches and other religious establishments, though the manufacture was not introduced until after the lapse of near a thousand years. The introduction among the Saxons is placed by Bede in the year 674, and its use was at first wholly confined to churches and religious edifices; nor was it generally employed in windows of private dwellings until long after the Norman Conquest. Specimens of Saxon glass may be seen in Westminster

Abbey, cemented into the tomb of Edward the Confessor: they are small square or diamond-shaped pieces, not more than an inch in length, and lined with gold leaf. Similar ornaments were seen in a tomb discovered in making reparations to the cathedral of Rochester some years ago, though of rather later date.

During these early times, the manufacture appears to have been confined to Italy or Germany. Venice became particularly celebrated for the beauty of its material and the skill of its workmen;—as early as the thirteenth century, its manufactories supplied the greatest part of the glass used in Europe; and specimens of the skill of their artists are yet in existence, composed of various coloured glasses fused together, enclosed in a beautiful transparent crust. The artists of Bohemia were also held in considerable reputation; to them is due the invention of the white spiral string which runs twisting down the stems of wine-glasses, so much admired in the last century, and of which many specimens remain.

The art was first practised in England in the year 1557, when a manufactory was erected at Crutched Friars in the city of London; and, shortly after, another at the Savoy in the Strand. These establishments chiefly confined themselves to common window-glass, or coarse bottles, all the finer articles being still imported from Venice. About a century later, the celebrated Duke of Buckingham brought workmen from Italy, and established at Lambeth a manufactory of plate-glass for mirrors and coach-windows in 1673. Since that time the art has made constant progress in England, and has now attained to such a degree of perfection that plates of larger dimensions are made here than in almost any other part of the world. Mirrors are procurable in London exceeding thirteen feet by seven, while the largest size in the Paris list is under eleven feet by seven; and in no other place is any approach made to those sizes, except at the Royal Manufactory of St. Ildefonso in Spain, where it is stated plates are cast measuring 13½ feet by 7½.

The base of glass is silica, which forms a considerable portion of many stones, and may be called the sole ingredient in crystal, flint, and sand. The substance is insoluble in water, and infusible in the greatest heat producible in common furnaces. If it could be melted, we might, perhaps, procure glass at once; but, as this cannot be done, it is necessary to find some substance that will cause crystal to melt without destroying its transparency; this substance is alkali, either soda or potash. The process of making flint-glass is as follows:—The finest white sand, such as most nearly resembles pounded crystal, is selected and washed thoroughly, so as to cleanse it, as far as practicable, from all impurities; it is then mixed with soda or potash in different proportions, from a half to a third, according to the quality of the glass required: some other ingredients are also added in much smaller quantities, as red lead, arsenic, and manganese, to clear the glass, to destroy all colour, and to make it melt easily. The mixture is now placed in the furnace, and heated gradually as long as any vapour rises from it; when this ceases, the fire is rapidly increased to its greatest violence, and continued nearly five hours: during which time, the sand, alkali, and all the other materials, melt into a mass. The mass must be stirred in every direction the whole of the time with an iron rake or scraper, which is changed, as soon as it gets hot, for a cold one, of which there is a supply ready, because the melted matter sticks to hot iron, while cold iron is free from this inconvenience. When the mass appears to be sufficiently mixed and agglutinated, it is taken out, cooled, carefully picked over to separate the dirt, and washed; in this state it is called frit. In preparing the frit for making green bottle-glass, the coarsest

materials only are taken, such as common sea or river-sand, and soap-boilers' waste. Legal enactments prohibit the use of finer materials for this purpose. The process of preparing the frit differs but little in other respects.

The frit is afterwards conveyed to the glass furnace, a domed building about ten feet in height by six or seven in diameter, and furnished with holes all round to put in and take out the metal. Within this furnace the frit is deposited in crucibles or melting pots, in which it is exposed to the greatest practicable heat. The holes round the furnace are provided with clay stoppers, on the removal of which, the matter in the crucibles may be seen to melt slowly, and to form by degrees a pasty mass, at first thick and opaque, but gradually acquiring transparency; then a thick scum rises to the surface, which is driven off in vapour by the application of vehement heat. When the scum is gone, the mass is now visibly converted into glass, but filled with little points like those appearing in ale poured into a tumbler. These points enlarge and become bubbles, in which state they rise slowly to the surface, burst, and disappear; the glass is then complete. To judge of its state of forwardness, the workman, from time to time, takes out a lump by means of an iron rod, to which the glass sticks like paste. When he finds it quite ready, he proceeds to make some article—a bottle, perhaps: for this purpose he takes an iron pipe above four feet in length, dips one end of it into the melted mass, draws out a lump, and rolls it upon a cast-iron table, until it is equally covered by the glass; he then carefully picks off any dirt with his pincers. If he has not metal enough for the article he wishes to make, he dips his tube again and again, until it has taken up a sufficiency. He then applies his mouth to the other end of the pipe, and blows strongly through it; the soft glass swells up like a bladder, and forms a globe, which he lengthens by rapid whirling round himself, or converts into a cylinder by rolling upon the table. When the process is thus far advanced, the workman detaches the pipe from the metal in the following manner:—he dips a small rod of iron into the melting pot, and by the help of the little lump of glass adhering to it, he sticks it to the further end of the article he is making. This little rod he holds in his left hand, while, with his right, he lets a drop of water fall on the neck of the bottle, where it joins the tube; the tube immediately drops off, or is separated by a slight blow, and the bottle is held up by the rod only. The neck is then fashioned with shears and other tools, and the bottle is made. It is then removed to another furnace, where it is allowed to cool very slowly, in order to prevent cracking, to which glass, quickly cooled, is very liable; this last process is termed annealing.

The above mode of blowing is sufficient for round bottles, or other articles of similar form, but for square or flat bottles a mould of iron or copper is required; this is made in two halves, between which the unfinished round bottle is placed, while yet very soft, and adhering to the blow-pipe. The mould is then shut close, and the air strongly forced into the bottle, which forces the glass to take the form of the mould. Names and coats of arms are often impressed on bottles in this manner. The article is afterwards annealed as usual.

Common window glass is at first blown much in the same way as bottles. A large globe is formed exactly in the same manner, and when it is necessary to separate the pipe, another workman is required to fix the iron rod to the other end on account of the great weight: the pipe is then separated. Thus far every thing is done as before stated, but the subsequent operations, by which the globe is converted into a flat circular piece, are perfectly dissimilar. Different modes

of effecting this are in use in different manufactories, but the most striking is that termed "flashing," which we proceed to describe. The rod to which the glass globe is attached is turned round upon its axis, at first slowly, and afterwards rapidly. Every body, perhaps, has noticed a game of little girls, in which they turn round swiftly until their frocks swell out almost into an horizontal position,—the same effect is produced in the glass thus rapidly revolving. The hole where the blow-pipe separated enlarges gradually, and as the opening increases, the workman increases the velocity until the globe assumes the form of a bowl or basin, when it suddenly spreads out with a sort of explosion and becomes a circular table of red-hot glass. The iron rod is then detached from the centre of the plate, leaving a large lump called the bull's eye, and the glass is annealed as before.

The art of making plate-glass is quite different from that of blowing. The greatest care in blowing will not entirely prevent the occurrence of streaks or flaws upon its surface, which spoil its beauty, and render it quite unfit for mirrors, as may be seen by the distorted figures produced in cheap looking-glasses, which are sometimes made of blown glass. For all superior purposes, glasses are cast rough upon a metal table, and afterwards ground and polished to any degree of fineness. The process is very expensive and elaborate, requiring large capital and skilful workmen. The furnaces for melting the glass in this manufacture are very large, and the melting pots contain nearly a ton of material. Square metal cisterns are placed in the pots to receive the melted glass, and to convey it to the tables on which it is to be cast: these cisterns remain some hours in the melting pots to acquire as great a heat as possible. They are then drawn out by means of a chain and pulleys, placed on a small iron carriage, and wheeled to the extremity of the table, which is furnished with ledges to confine the melted stuff; the glass is then let out of the cistern, either by turning it over or by slipping off the bottom, and a torrent of red-hot flaming glass rolls out upon the table, not quite fluid, like melted lead or iron, but somewhat thick and pasty, like melted sealing-wax. A large roller of metal, weighing about four hundred pounds, is rolled upon the surface to spread it evenly upon the table, and to make it of uniform thickness. The glass is now taken from the table, which is ready to receive another casting, and the operation is repeated until all the metal is exhausted. The short time that glass remains liquid renders great quickness necessary in these operations, for the work cannot be held at the mouth of the furnace as may be done in blowing: the rapidity acquired by habit would be incredible to any one who has not witnessed the operation, and is surprising to those who do see it. When the glasses are well annealed, which takes many days to perform, they are rubbed upon each other with sand, emery, and polishing powder, until they acquire that evenness and polish which gives them so great a superiority over all other kinds of glass, and makes them the most splendid ornament of the palace and the drawing-room.

OSTADE.

ADRIAN VAN OSTADE, a distinguished painter of the Flemish school, was born at Lubeck, in the year 1610, and studied under Francis Hale, in company with Brauwer, with whom he contracted a close intimacy. The reputation which the works of Teniers then enjoyed led him to be ambitious of imitating the manner of that artist. But he was deterred from the execution of this project by the advice of Brauwer, another Flemish painter, who convinced him that he could never attain a high place in his art if he devoted himself to the servile imitation of another, however eminent. Van Ostade followed this advice, as well as the bent of his own mind; for, while the subjects of which he made choice were of the same class with those of Teniers, he treated them in a manner altogether his own.

Characteristic traits, some of which strike us at the first glance, distinguish Ostade and Teniers. These two masters are equally admirable for the transparency and harmony of their works, but the colouring of Teniers is clear, gay, and silvery, and his touch firm, light, and bold, while the pencil of Ostade, always rich and soft, is sometimes wanting in firmness.

If we consider design and composition, Teniers places in opposition, and unites with skill, numerous groups; bold and able in giving all the effects of light, he develops extensive scenes in the open air, and gives them the spirit and life of nature, without any of his shadows being ever extravagant, and without even suffering the art of his combinations to be apparent. His figures are always correctly drawn; their attitudes easy, and even graceful. Ostade, on the contrary, collects his figures into places feebly lighted;—generally in the interior of houses, where a partial gleam only breaks through the masses of foliage which shade the window. He does not always observe the laws of perspective with rigorous accuracy; and the drawing of his figures is often incorrect. But he charms principally by the spirit with which he animates his groups, by a general softness of composition, and by his mysterious and striking effects of light.

But a difference, still more important, distinguishes the works of these two masters. Teniers, while he imitates Nature, preserves her grace. If he represents rustic festivals, we recognise in the sports of the peasants, in their joy, in their anger, the diversity of their characters. Every condition and every age has its peculiar manners. Ostade attaches himself constantly to the representation of humorous scenes. Confining the circle of his models, he contents himself with choosing from the figure and the actions of peasants, whatever nature offers of grotesque and of low. He varies his subjects with skill, as well as the expression of his faces; but he never deviates from the burlesque style which he has chosen. Teniers paints the manners of the Dutch peasantry as they were marked by occasional grossness, but with a general character of hearty jollity and of mirth proceeding from content. Ostade, a satirist, deforms his personages to render them more droll and ridiculous. The director of Ostade's taste, Brauwer, painted in alehouses the companions of his debauchery; Ostade, on the contrary, as well as Teniers, was remarkable for the decency and the gravity of his manners.

The coarse natures and the gross enjoyments which Ostade delighted to paint are represented with such truth and excellence, that the most refined taste regards his works with satisfaction. He surprises the judgment into such implicit admiration by the truth of character and energy of effect displayed, that the ground which his choice of subjects often affords for censure is forgotten. It is true that his pictures are not always of a low character; but Van Ostade did not often

The Past and the Present.—Those who have never experienced the want of the luxuries and conveniences of every description which London and other great cities and towns of England now afford, will not readily conceive how our ancestors contrived to pass their lives in any degree of comfort with their unpaved, unlighted, undrained streets—without water conveyed to their doors by pipes or aqueducts—without hackney-coaches, or other light vehicles for travelling—without a general or two-penny post—and a thousand other petty conveniences, the privation of any one of which would grievously disturb the temper and affect the comforts of the present generation.—*Quarterly Review*.

attempt any other, nor excel when he did. It did not occur to the Dutch painters to do what our own Wilkie has so admirably done,—to invest the representations of common life with dignity and grace, by associating them with scenes which, though familiar, affect the heart :—

“Some natural sorrow, loss, or pain,
Which has been, and may be again.”

The works of Ostade are too highly laboured to be very numerous, and hence they are now only to be bought at very high prices. His peculiar talent was so much appreciated by the artists of his own time, that many of the most eminent were in the habit of soliciting him to put the figures into their landscapes, by which their value was greatly increased. He had already acquired considerable reputation, when the approach of

the French troops in 1662 induced him to withdraw from Haarlem, where he had gone to complete his studies. He had sold all his works, and intended to return to Lubeck; but, on his arrival at Amsterdam, an amateur, called Constantine Senneport, so forcibly represented to him the advantages which an artist possessed in a great city, that he was induced to settle at Amsterdam, and remained there until his death in 1685.

This picture, from the Musée Français, which we have engraved, is particularly remarkable for extreme finish. The whole bears the greenish and violet tint which was familiar to Ostade; the colouring is rather monotonous, and the touch wants vigour; but the effect of the light is managed with great skill, and the head of the principal figure is full of spirit and character.



[The 'Smoker,' by Ostade.]

THE ISLAND OF MILO.

[From a Correspondent.]

WHOEVER attempts, in the summer, to pass up the Grecian Archipelago, unless it be in a steamer (which sort of vessel is unfortunately most rare in the seas where it would be most useful), will very soon find he has undertaken a difficult and very tedious task. In the upper part of the Mediterranean, more particularly, the winds blow almost with the regularity of the monsoons. In the summer season they are generally contrary to those who are sailing for the coast of Troy or Constantinople. To this impediment is added the repelling force, felt in many latitudes and directions, of a contrary current, in part produced by the waters of the Black Sea and Sea of Marmora, which rush almost as rapidly into the Mediterranean, by the Straits of the Bosphorus and Dardanelles, as do the waters of the Atlantic Ocean into the same sea by the Straits of Gibraltar at the opposite extremity. This current, in the upper part of the Archipelago, runs uniformly and, of course, at all seasons, at the rate of four miles an hour. The summer wind, which blows from the north, and is called the Etesian, commences about the end of May, and continues with only short intermissions or changes until September. I have known some twenty or thirty vessels, of all flags, reach Tenedos and the coast of Troy just as this Mediterranean monsoon set in, and be detained there, close to the mouth of the Dardanelles, and utterly unable to pass those Straits for three months. We were not quite so unfortunate as this, though we had our patience well tried.

We sailed from Malta about the middle of July, 1827, at which time the whole of the Archipelago swarmed with desperate Greek pirates. For protection, we were placed under the convoy of a Dutch sloop-of-war, proceeding to Smyrna. Besides the vessel in which we were passengers, there were some twenty other merchantmen,—Dutch, English, American, French, Sardinian, Maltese, and Neapolitan,—to keep all of which together and safe demanded no trifling exertion of vigilance and patience on the part of the man-of-war. The pirates had become so daring that, in their light misticoes and row-boats, they had several times attacked a trading vessel, becalmed at some distance from her convoy, and plundered her before the man-of-war's boats could get to her assistance. Several times, indeed, in the course of our own voyage, we saw, at the approach of evening, a group of these Greek misticoes creeping out from behind some head-land of the coast, or dodging round some one of the numerous little islands of those seas, on the look out for prey; but the measures and the caution of our worthy Dutch captain were so excellent that we all escaped injury, though not an occasional alarm. At night, the convoy-ship carried a light at her stern-quarter, and another bright one at a yard-arm. The merchantmen had each a light; and, in case of any apprehension or danger, each was to hoist a second light as a signal. Now there were two or three ships in the fleet who were apt to see pirates and misticoes when none of the rest could, and their alarm-lantern was rather too frequently in motion. Whenever it was displayed, the Dutch man-of-war bore round in that direction, and there was such a rummaging for gunpowder, muskets, blunderbusses, swords, and pikes on board the rest of the fleet as if another Navarino was to be fought.

At other times, however, the fleet, as it was engaged in the narrow channels that occur between the beautiful islands of the Cyclades, and obliged to tack, so that the ships, with their bright lines hung out, were continually crossing and recrossing each other in all directions, like figures in an intricate country-dance, presented a very novel and delightful scene. When the

nights were fine, which they almost invariably were, the sailors on board the Dutch man-of-war amused themselves by singing together for hours at a time. The character of their music was not unlike that of our own, but they sang in better time and more correct tune than people of the same class among us. Now and then a long cadenced chorus, which seemed swelled by a hundred manly voices, was exceedingly impressive*.

Thus we went up the Archipelago, surely, and very slowly. It would be inflicting part of the tedium we suffered to describe how frequently we were brought to a dead stop by a breathless, suffocating calm,—how often we were driven back from our course by the violence of the contrary wind,—and how many days we were with our tacking and sec-sawing in performing a distance that a steam-boat would have done in a less number of hours. Of the many interesting spots in the Archipelago which we had thus an opportunity of seeing I may speak on some other occasion; but, to present wishes to give a notion of the curious island of Milo, I must shorten our approaches to that place. We were within sight of Milo on the 26th of July: on the 28th we had got about fifty miles above it, and were attempting to make what is now called the Doro Passage, viz., the strait between the Negropont and the island of Andros. For three whole days we beat, and tacked, and laboured, without apparently getting a mile in advance, while some of the fleet made so much leeway that there was danger of their being separated from the convoy. On the third day the wind became more violent, and two or three points more against us; so that at last the man-of-war gave up the hopeless struggle, and, followed by all the merchantmen, ran back to Milo, which offers one of the finest ports in the world. I have seen most of the celebrated harbours in the Mediterranean, but know none so safe, commodious, and beautiful as this. We entered by a mouth—which faces the north-west—so narrow that, in seamen's parlance, we might almost have thrown a biscuit on shore on either side of us, and, at the same time, exceedingly deep in every part. We then found ourselves in an extensive basin, protected from the violence of all winds by high lands that entirely surround it. The outline of these eminences is exceedingly picturesque. On one of the heights, which terminates in an acute cone, immediately above the ground where vessels generally anchor, stands the present town of Milo, which looks as if it were about to slide down into the sea; and, on the opposite side of the harbour, a very grand mountain, called St. Elia, towers in the blue sky. In this magnificent harbour we found American, French, and Austrian men-of-war, with merchant vessels under their convoy; but there was room enough for the united navies of the whole world. Here we were detained thirteen days, so that if we did not see the island well it was not from want of time.

The place offered few resources except such as presented themselves in the examination of the antiquities and natural curiosities. There was, indeed, a coffee-house with a billiard-table at the common landing-place; but it was a wretched hovel, and the billiard-table was afflicted with the rickets. As the weather was exceedingly hot, we applied for horses. There were none on the island, but the peasants brought us some very good mules. Unfortunately, however, for us, the only saddle in Milo was one (a demi-pique) belonging to the French vice-consul, so that we were obliged to ride upon wooden machines, used by the Greeks, of a very awkward construction.

Our first excursion was to the town, to which we as-

* According to Mr. D'Israeli, "a society instituted in Holland for general good do not consider among their least useful projects that of having printed, at a low price, a collection of songs for sailors."—*Curiosities of Literature*, vol. iv.

cended by a steep, rough path, which, in many places, crumbled and broke away under the mule's feet. The whole of this conical hill is composed of volcanic tufa, covered here and there with a thin white soil, and, in some parts, broken with masses of lava. The town itself is a miserable, dirty place, consisting of some thirty or forty houses, of one story, built with rough stones, wood, and mud. We could scarcely pass through the main street—which is narrower than the narrowest alley in London—for the pigs, which seemed to live on very intimate terms with the inhabitants, and for the mud and filth that was accumulated in every part of it. The situation, the view it commands, and the coolness of the air on that mountain-top, are, however, delicious. As we went through the town, we were followed by nearly all the women and girls, pressing us to buy cotton night-caps, which they make themselves from cotton grown on the island. We were entertained in a tolerably clean and comfortable house, by a Greek, who exercised the functions of Dutch vice-consul. This house was curiously situated on the very edge of a rock that descended like a wall to the deep *Ægean* Sea, into which we could drop stones from one of the windows. The height must have been between two and three thousand feet. After having examined the town, where we found several beautiful fragments of ancient marbles, and architectural ornaments, one of which (the capital of a column of the Corinthian order) had been hollowed out and then served as a pig-trough, while most of the others were converted into steps, or imbedded in the walls of the houses, we proceeded to the ancient Greek tombs, which are situated a little lower down the hill. To our surprise, we found a labyrinth of subterranean passages running through the hill in every direction. Indeed, the whole of the superior part of this hill is completely honeycombed. These passages, which are now, for the most part, choked up with soil and rubbish, are series of burying-places, the total number of which is so enormous that it would almost induce us to believe, though we find no authority in ancient writers for such a conclusion, that Melos* was a favourite place of sepulture among the ancient Greeks—a Necropolis, or city of the dead, for all the surrounding islands. In other parts of Milo there are tombs almost as numerously congregated as here; and, whatever may have been the superior population in its flourishing times, we can scarcely believe that it could require all these burying-places.

We crept into several of the dark, melancholy passages, which appear to have been lined throughout with fine stucco, and ornamented, at intervals, with figures in terra-cotta, in very bold relief. But every thing accessible had been removed before our time. We, however, procured from a peasant a specimen of the clay-relievi. It was like a thick, flat tile, about fifteen inches long, by nine inches broad. There were three figures in profile, that seemed to form part of a procession, upon it. The style of these figures was very simple and ancient, and seemed to be something between the oldest Egyptian and that style vaguely denominated the Etruscan. The clay, or terra-cotta, was a beautiful compact, yellowish-red substance, and so well baked as to be harder than granite. The outline of the figures, the relief of which was not rounded off, but stood up straight and flat from the ground of the piece, was as sharp and perfect as if it had just come from the artist's hands, although the fragment had been subjected to very rough treatment since it had been dug up by the poor Greek. A short time before our visit to the island, a French nobleman (I believe the Count Delaborde) had some of the tombs laid open, and some excavations made. A beautiful small statue, of the very best period

of Grecian art, some curious gold ornaments, and some other relics of antiquity, which were all presented to the French king, were the results of these exertions, and, as I was informed, were found entirely among the tombs.

A few days after our first visit, as we were climbing up to the town, we witnessed the ceremonies of a modern Greek funeral. The tomb was not very classical or elegant, but some of the forms observed were evidently derived from the classical ages. We were examining an old half-ruined chapel that stands on the hill side, about midway between the port and the ancient cemeteries, when our ears were struck with sounds of lamentation and woe. On looking up, we saw a procession of about thirty persons winding slowly down a steep zig-zag path that leads from the town to the old chapel. As it approached nearer, we saw that this procession was chiefly composed of women, who preceded a dead body borne on an open bier, and who tore their dishevelled hair and beat their breasts, and uttered wild cries as they advanced. These represented the *præfixæ*, or hired troop of female mourners of ancient days.

As they reached the spot where we stood, we perceived that the dead body, which was that of an elderly woman, was arrayed in her best attire, and that flowers were strewed over her and the open bier on which she was carried, and that a bouquet was placed in each of her hands, which were crossed over her breast. The bier was closely followed by the female relatives of the deceased, whose heads were completely enveloped and concealed in folds of white drapery. All this was perfectly in accordance with ancient usage.

The procession passed to the rear of the chapel, where we saw a rude shallow grave, scarcely three feet deep. As the women who headed the line of march drew near to the grave, they tore their hair, beat their breasts, and cried aloud more violently than ever. The bier was set down on the brink of the tomb, at either end of which a priest with an *encensoir* took his post. Then all the near relations of the deceased, male and female, approached, and, one by one, took a last embrace, raising the corpse in their arms, calling on its name, and then laying its head on the bier. While this was doing, the female mourners repeated the name of the deceased, and showed the utmost extravagance of grief. In a few minutes the body was lifted up by the priests and two male relatives, and deposited as it was, full dressed, but without any coffin or shell of any kind, in the shallow grave. The grave, however, was boarded beneath in part, and under the head of the corpse they carefully placed a cushion or pillow. The voice of lamentation was then hushed for awhile;—the priests said the service for the dead, laid a small wooden cross on her breast, and threw a handful of earth into the grave. As the last symbolical action was performed the mourners again wailed, beat their breasts, and tore their hair; but almost immediately after they all left the grave and withdrew to the other side of the chapel. There was one little incident in this melancholy scene which almost provoked a smile. Before the body was covered, one of the party approached it, took off the shoes on its feet, which were a new pair, and the turban from its head, substituting for them an old pair of shoes and another turban of inferior quality. The earth was then thrown in upon the body, until the very shallow grave was filled up, and a mound, only a few inches high, raised above it.

As we were about to leave the place, an old Greek came to us and invited us to partake of the funeral feast, which all of the party were now celebrating in front of the chapel. We went, and were regaled with wine, raki (a bad sort of brandy), cakes made of honey, oil, and flour, and with "*colyva*," which is a species of

* The ancient Greek name of Milo.

pudding composed of boiled wheat, almonds, and honey. Except the raki, these materials were pretty much the same as those used both by the ancient Greeks and the ancient Romans on the same occasions. The cates and drink were distributed by the priests, who seemed to partake sufficiently copiously of both. After this feast, which occupied about half an hour, the procession again formed, passed by the grave, throwing a few flowers and dark-green herbs upon it as they passed it, and then slowly ascended the hill to the little town.

[To be concluded in the next Number.]

SALMON FISHING ON THE COAST OF ANTRIM, AND SAGACITY OF A DOG.

"THE mode of fishing on this coast is different from any that I have seen: the net is projected directly outward from the shore, with a slight bend, forming a bosom in that direction in which the salmon come. From the remote extremity, a rope is brought obliquely to another part of the shore, by which the net may be swept round at pleasure and drawn to the land; a heap of small stones is then prepared for each person. All things being ready, as soon as the watchman perceives the fish advancing to the net, he gives the word, and immediately some of the fishermen seize the oblique rope by which the net is swept round to enclose the salmon, while the rest keep up an incessant cannonade with their ammunition of stones to prevent the retreat of the fish till the net has been completely pulled round them; after which they all join forces and drag the fish quietly to the rocks. Now that I am upon the subject of fishing, I may mention an instance of sagacity which I had an opportunity of observing a short time since, in a water-dog of this country, who had become an excellent fisher. In riding from Portrush to the Giant's Causeway with some company, we had occasion to ford the river Bush near the sea; and as some fishermen were going to haul their net, we stopped to see their success. As soon as the dog perceived the men to move, he instantly ran down the river of his own accord, and took post in the middle of it on some shallows, where he could occasionally run or swim, and in this position he placed himself with all the eagerness and attention so strongly observable in a pointer dog who sets his game. We were for some time at a loss to apprehend his object; but the event soon satisfied us, and amply justified the prudence of the animal; for the fish, when they feel the net, always endeavour to make directly to sea. Accordingly, one of the salmon, escaping from the net, rushed down the stream with great velocity toward the ford, where the dog stood ready to receive him at an advantage. A very diverting chase now commenced, in which, from the shallowness of the water, we could discern the whole track of the fish, with all its rapid turnings and windings. After a smart pursuit, the dog found himself lost considerably behind, in consequence of the water deepening, by which he had been reduced to the necessity of swimming. But, instead of following this desperate game any longer, he readily gave it over, and ran with all his speed directly down the river, till he was sure of being again to seaward of the salmon, where he took post, as before, in his pointer's attitude. Here the fish a second time met him, and a fresh pursuit ensued; in which, after various attempts, the salmon at last made its way out to sea, notwithstanding all the ingenious and vigorous exertions of its pursuer. Though the dog did not succeed at this time, yet I was informed that it was no unusual thing for him to run down his game; and the fishermen assured me that he was of very great advantage to them by turning the salmon toward the nets; in which point of view his efforts in some measure corresponded with the cannonade of stones which I before mentioned."—*Hamilton's Antrim*.

Mental Culture.—It was said by Charles XII. of Sweden, that he who was ignorant of the arithmetical art was but half a man. With how much greater force may a similar expression be applied to him who carries to his grave the neglected and unprofitable seeds of faculties which it depended on himself to have reared to maturity, and of which the fruits bring accessions to human happiness more precious than all the gratifications which power or wealth can command.—*Dugald Stewart*.

Incredulity.—Raleigh calls incredulity the "wit of fools."

Entire Application.—Little can be done well to which the whole mind is not applied.—*Johnson*.

Genius.—A distinguished teacher, and president of a college, defined genius to be "the power of making efforts."—*Annals of Education*.

Best Place and Best Friend.—The best place in the world is the saddle of a rapid courser: the best friend in the world is a good book.—*Arabian Author*.

Common Qualities.—The ambition of a man of parts is very often disappointed for the want of some common quality, by the assistance of which men with very moderate abilities are capable of making a great figure.—*Armstrong*.

Knowledge and Ignorance.—The man of knowledge lives eternally after his death, while his members are reduced to dust beneath the tomb. But the ignorant man is dead, even while he walks upon the earth: he is numbered with living men, and yet existeth not.—*Arabian Author*.

Economy.—A sound economy is a sound understanding brought into action. It is calculation realized. It is the doctrine of proportion reduced to practice. It is foreseeing contingencies, and providing against them. It is expecting contingencies, and being prepared for them.—*Hannah More*.

Roman History.—One feels the same kind of disgust in reading Roman history which one does in novels, and even epic poetry. We too easily forgive to whom the victory will fall. The hero, the knight-errant, and the Roman, are too seldom overcome.—*Shenstone*.

Remote Views.—It is common to overlook what is near by keeping the eye fixed on something remote. In the same manner present opportunities are neglected and attainable good is slighted by minds busied in extensive ranges, and intent upon future advantages. Life, however short, is made shorter by waste of time; and its progress towards happiness, though naturally slow, is made still slower by unnecessary labour.—*Johnson*.

Routine Education.—It is related by Miss Edgeworth, that a gentleman, while attending an examination of a school, where every question was answered with the greatest promptness, put some questions to the pupils which were not exactly the same as found in the book. After numerous ready answers to their teacher on the subject of geography, he asked one of the pupils where Turkey was. She answered rather hesitatingly, "in the yard, with the poultry."

Practical Instruction.—A gentleman, not long since, took up an apple to show a niece, sixteen years of age, who had studied geography several years, something about the shape and motion of the earth. She looked at him a few minutes, and said with much earnestness, "Why, uncle, you don't mean that the earth really turns round, do you?" He replied, "But did you not learn that several years ago?" "Yes, sir," she replied, "I learned it, but I never knew it before." Now it is obvious that this young lady had been labouring several years on the subject of geography, and groping in almost total darkness, because some kind friend did not show her at the outset, by some familiar illustration, that the earth really turned round.—*American Annals of Education*.

* * The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's-Inn Fields.

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NEWCASTLE-UPON-TYNE.



[St. Nicholas Church, Newcastle-upon-Tyne.]

This borough, ~~sea~~-port, and county-town occupies the north bank of the river Tyne, over which there is a handsome stone bridge connecting the place with Gateshead in the neighbouring county of Durham. Newcastle is of great antiquity, and of considerable note in history. It was established as a military station of the Romans by Agricola, in the year 80. Here was the eastern termination of the wall built by order of Hadrian, in the year 120, to defend the Roman province from the incursions of the Caledonians, and which has been traced passing the west door of St. Nicholas's church. The town is supposed to have originated from a bridge built over the river by Hadrian, and called from his family name Pons Ælii,—a denomination which was also taken by the town. Roman coins and other antiquities have been discovered at Newcastle at different times, particularly after the floods in 1771, when the foundations of the bridge having been damaged, coins of Hadrian and other emperors were discovered at the bases of the piers; and, in 1810, in excavating the ground for the erection of a new county court, two Roman altars were disinterred, together with coins of Antoninus Pius, the successor of Hadrian, as well as other remains of antiquity.

From the evacuation of Britain by the Romans until the Conquest little is known of this place; but there is no doubt of its having been a town of importance under the Northumbrian monarchs of the Saxon line, who appear to have been succeeded in the possession of it by the Danes; and, at the Conquest, it was in the hands of the Scots. It was then known by the name of Munk-cæstre or Monk-chester, a designation which it obtained from the number of religious foundations which had been established in it during the Heptarchy, and some remains of which are still in existence. The Scots were speedily expelled, and a castle being erected by Robert, the eldest son of the Conqueror, on the site of an old fortress, the town thence took its present name of Newcastle. This castle occupied an extent of three acres, and was a fortress of great strength, having been defended by a deep ditch and two massive walls. Many historical recollections are connected with this structure, which has now fallen to decay. Of the outer wall nothing remains but the principal entrance, called the Black Gate; the inner wall was entirely demolished in 1811. The great tower, a massive square structure, is standing; it is about eighty feet high, and its exterior walls measure about fourteen feet in thickness, and extend sixty-two feet by fifty-four. There are no fire-places in any part of this edifice, except in a few small rooms which appear to have been cut out of the walls in later times. The dungeon was used from time immemorial, until the erection of the present Court-house, as the county prison during the assizes. A very bold circular staircase ascends to the summit of the tower; and adjoining, on the east side, is a chapel of most beautiful and curious architecture.

The town itself appears to have been surrounded by a wall so early as the reign of King John, who granted a charter to the inhabitants; but the oldest charter extant is said to be that of Henry III., who, in 1239, bestowed on the townsmen the right of digging in the vicinity for coal and stone. In the reign of Edward I., Newcastle was taken and burnt by the Scots; and among their prisoners was one of the burgesses, who, being a rich man, paid his ransom, and on his return home commenced rebuilding the fortifications, to the expense of which he largely contributed; they were completed by the inhabitants in general, encouraged by the king, who united to the town the hamlet of Pampendon, or Pandon, which was included within the walls. This rampart is said to have been twelve feet high, and eight in thickness, strengthened with several

towers and furnished with seven gates, besides which the place was defended by a wide ditch. An incidental notice of this wall occurs in a deed of Edward I., who granted to the black friars or Dominicans the right to make a passage through the new wall to their garden. At a later period, Leland said of this wall, "The strength and magnificens of the wauling far pusseseth all the wauls of the cities of England, and most of the townes of Europe." Newcastle, at this early period, "had become one of the principal commercial ports of the kingdom; and it appears from authentic documents that the revenues of the town had, in 1280, risen to 200*l.* a year—a large sum at that time. This income was derived chiefly from the municipal duty upon coal, the use of which for fuel did not, however, become general until long subsequently to that period. In 1346, seventeen ships and 314 mariners were furnished by this port for the siege of Calais, on the requisition of Edward III. The situation of Newcastle, upon the borders of Scotland, exposed it to the repeated attacks of the Scots before the union of the two kingdoms. When they invaded England, previously to the out-breaking of the civil war, they took possession of Newcastle. It was afterwards garrisoned by the Royalists; but, in 1664, it was again, after a long siege, taken by the Scots, who were then in alliance with the Parliament."

The town is about ten miles from the mouth of the Tyne, but the river is there a fine, deep, and noble stream; its banks are steep, and the ground rises on each side to a considerable height. Ships of 300 or 400 tons burden may reach the town itself; larger vessels deliver their cargoes and take in their lading at Shields; and the river forms so secure and commodious a haven, that danger rarely if ever ensues in it either from storms or shallows.

The town within and without the walls extends for more than two miles along the river, and about one mile from the river towards the north and north-west, rising along the hill and crowning its summit. The houses are, with very few exceptions, built either of stone or of brick; the streets near the river, which were formed at a remote period of time, are narrow, irregular, and steep, and the buildings on the slope of the hill much crowded together: but with its progress in wealth and importance the town has received proportionable additions and improvements; several of the streets have been widened, and a great number of modern ones have been erected, especially in the north and west quarters of the town. These newer quarters are laid out with skill and taste, and in a superior style of architecture; and the spirit of improvement, with the increasing prosperity of the place, bid fair to render it equal in convenience and elegance to the first towns of the kingdom. The Boundary Commissioners, in their Reports (Part iv. p. 173,) state, "We are led to believe that the condition of the town of Newcastle is generally flourishing; we have observed numerous buildings of a very good and respectable, and some of a very superior description, either in progress or very recently completed; and we were informed by the parish officers that the town was increasing."

Of the public buildings, the most remarkable is the church of St. Nicholas, noted as one of the most admired structures of the kind in the island. This fine church crowns a bold eminence which rises abruptly from the surface of the river to near the centre of the town. From this commanding position it presents, in every point of view, a most striking specimen of architectural skill. "It is," says the writer of 'A Descriptive and Historical Account of the Town and County of Newcastle-upon-Tyne,' "an object of pride and boast to the inhabitants; and it never fails, by its singular and original combinations of magnificence,

delicacy, and ingenuity, to enchant and gratify every stranger who has 'an eye to see and a soul to feel.' The building appears to have been originally founded in the fourth year of William Rufus (1091), by Osmund, Bishop of Salisbury; but it does not seem to have been completed in its present state until 1359, the first structure having been destroyed by fire in 1216. The building is 240 feet long, 75 wide, and the height of the tower 193 feet 6 inches. This structure has been compared to an imperial crown. The tower is square, and its four angles are decorated with lofty and highly-ornamented spires, from whose bases spring four segments of arches, which at their intersection, twenty feet above the battlements, support a lantern of exquisite lightness and beauty, with smaller spires than those of the tower at its angles, while from its centre rises a lofty and well-proportioned pinnacle, which, terminating with a fine vane, finishes this extraordinary structure. This tall and elegant pinnacle, which is hollow within, is built with stones only four inches in breadth, and indeed most of the stones throughout the tower are such as the workmen might have carried under their arms. There are three other churches, and several chapels of ease, besides fifteen places of worship belonging to dissenters. Newcastle has several fine public buildings. The Exchange was built in 1659, and has since been much improved; the second floor is used as a Guildhall, and contains, among other portraits, those of Earl Eldon, Lord Stowell, and the late Admiral Lord Collingwood, all natives of this town; as was the late Dr. Hutton. That very original artist and engraver, Bewick, one of whose pupils furnishes our present wood-cut, was born near and lived at Newcastle.

The new courts of justice for the county of Northumberland, the Mansion House, the Theatre, the Assembly Rooms, and the Library, are the other more important public buildings. The new bridge over the Tyne was finished in 1781, at a cost of 30,000*l.*; it is a very strong, handsome structure, of nine elliptic arches, and extends 600 feet in length. To the south and east of the Exchange there is a spacious area, which, being well wharfed up and faced with freestone, forms the quay, which is one of the largest and longest in any part of Great Britain. Newcastle is honourably distinguished by its institutions for the advancement and diffusion of knowledge, for the number of its establishments for gratuitous instruction and for relief to the afflicted.

The importance and prosperity of Newcastle have chiefly emanated from the coal trade, for the prosecution of which the town is admirably situated on the bank of a navigable river, and in the midst of one of the most extensive coal-fields in Great Britain, or perhaps in the world. Coal is scarcely mentioned in history until after the grant of Henry III., relative to the right of digging for coal, in 1239; but, thirty-six years after, the commerce in this article had become very considerable, and it continued to increase, notwithstanding that the prejudice against using coal for fuel was so great, that, in 1306, it was prohibited in London, under severe penalties. This prohibition was subsequently removed, and it appears that the trade in coal between Newcastle and London was authorized by government in 1381. In 1699, two-thirds of the coal-trade of the kingdom belonged to this town, whence 300,000 chaldrons a year were sent to the metropolis; and 600 vessels of 80 chaldrons burden each, together with 4500 men, were employed in carrying on this commerce. The quantity of coal shipped from Newcastle, in 1791, was 404,367 chaldrons sent coastwise, and 45,702 over sea; in 1801, 452,092 sent coastwise, and 50,401 over sea; in 1811, 634,371 sent coastwise, and 18,951 over sea; in 1821, 692,321 sent coastwise, and

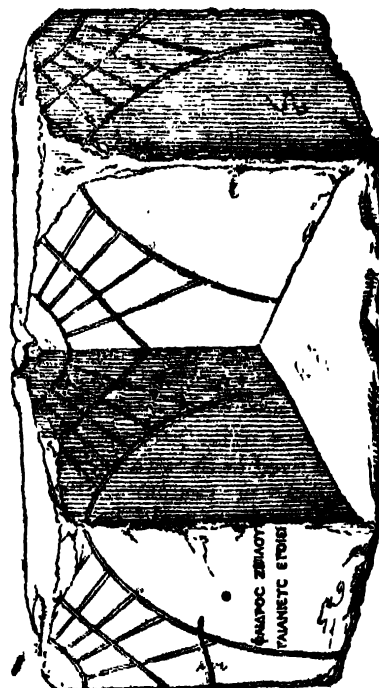
48,097 over sea; and in 1826, 800,437 sent coastwise, and 62,620 over sea.

In the number of vessels belonging to its port, Newcastle is inferior only to London: the number was, in 1829, 987 ships of 202,379 registered tonnage. Its foreign trade seems also increasing. The British vessels which entered from foreign parts in 1831 were 422,—tonnage, 68,975; and the foreign vessels, 343,—tonnage, 33,402; whereas, in 1826, the British vessels from foreign parts were only 300, and the foreign vessels only 226.

The borough has returned members to Parliament ever since the reign of Edward I. From 1705 to the passing of the Reform Bill, the elective franchise was exercised by the corporation and freemen, who amounted to 4000. In 1831, the number of houses in the borough was 5232, of which 2961 were taxed at 10*l.* a-year and upwards; the annual value of the real property was 123,790*l.*; and the population amounted to 42,760; but the borough, as enlarged by the Reform Bill, contains 7120 houses, and a population of 52,613, according to the Boundary Reports.

CLOCKS.

The first mode of measuring the lapse of time was undoubtedly the observation of the sun's motion. In almost all climates the morning, noon, and evening would be readily distinguished. The Babylonians appear to be the first who obtained greater accuracy by the invention of the sun-dial, at what epoch is not exactly known, but it was evidently at a very remote period. The dial of Ahaz, mentioned by Isaiah, must have existed eight centuries before the Christian era; and it is a curious example of the little communication which existed in ancient times between the nations of the world that this instrument was unknown to the Greeks until about 640 a.c. One of these Grecian sun-dials is preserved in the British Museum. It is conjectured that it served to show the hour in one of the cross-ways of Athens. The following is a representation of it; the Greek inscription, placed on the exterior of the two western faces, states, that "Phædrus, the son of Zoilus, a Præonian, made this:"—



A few centuries later, the Egyptians, in order to distinguish the hours at night and in cloudy weather

invented the clepsydra, or water-clock; probably a mere float, with a rod fixed upon it like a mast, and placed in a vessel of water with a hole at the bottom: as the water ran out the float descended, and figures marked on the rod, at proper intervals, showed the number of hours elapsed. The sand-glass, made like the modern hour-glass, was also used in ancient times, as appears from a bas-relief representing the marriage of Peleus and Thetis, in which is the figure of Morpheus holding a glass of this construction.

The period of the invention of wheel-clocks is involved in uncertainty, some authors stating it to have been as early as the fourth, and others as late as the tenth century. The cause of this disagreement is that the word clock has been used to designate the clepsydra and hour-glass; and probably the clocks mentioned by old chroniclers, and set down by modern authors as proofs of the antiquity of the invention, were some modifications of these instruments. Such, probably, was the clock sent by Paul I. to Pepin le Bref, in 760.

The French historians describe a clock sent to Charlemagne, in 807, by Haroun al Rashid, the Caliph of the East, which struck the hours by the falling of twelve brass balls upon a bell. It had also twelve horsemen, who came out, one at a time, at separate doors, which they opened and closed again. This clock must certainly have been furnished with some kind of wheel-work, but the moving power is said to have been the fall of water.

In the twelfth century, clocks moved by weights appear to have been used in Italy, and early in the fourteenth one was put up in London by Wallingford, a monk, who died in 1325, which was said to show the time with accuracy. In the year 1344, Giacomo Dondi erected at Padua his celebrated clock, which, besides the hour of the day, showed the course of the sun in the ecliptic, and the places of the planets. The celebrity acquired by this clock was the cause of great advancement in the art; almost every court in Europe was desirous of possessing a similar work, and skilful mechanics were in consequence induced to turn their attention to the manufacture. Its author was dignified with the surname of Horologius, which is still borne by his descendants, the chief of whom, the Marchese Dondi-Orologio, was lately, and most likely still is, a resident at Padua.

A story told of Louis XI. (King of France from 1461 to 1483) shows that the art had then made great advances. A gentleman who had lost a great deal of money at play, stole a clock belonging to the king, and hid it in his sleeve. In a short time, the clock, which continued to go notwithstanding its removal, struck the hour, and the theft was of course discovered. Louis, as capricious in kindness as in tyranny, not only pardoned the culprit, but made him a present of the clock. All these instruments, though much superior to the clepsydra, and celebrated at the period of their invention for the accuracy of their movements, gave, according to our present notions, but coarse approximations to the true time. They were retarded greatly when a particle of dust got into their works, and accelerated when cleaned. As to the minute divisions of time, they were quite useless. Tycho Brahe, an astronomer who lived in the sixteenth century, and who spared no expense or trouble in their construction, found that no dependance could be placed upon them for his observations.

The adaptation of the pendulum by the celebrated Huygens, in 1657, at once brought clock-making to perfection. The clock, which had hitherto merely served to divide the day into periods of sufficient accuracy for the details of business, or the hours of eating and sleeping, now became the means of recording the minutest lapses of time, of showing the smallest irregularities in the apparent motion of the sun and

planets, and of reducing astronomy to the exactness of mathematical reasoning. Increased skill in workmanship has, of course, produced greater accuracy, but the pendulum is still the means of giving it effect.

[To be continued.]

Cacao.—The 'Account of the Cacao-Tree and its Products,' in No. 127 of 'The Penny Magazine,' has induced a Correspondent to send us the following statement of what he considers the best mode of preparing the cacao-bean for use. Cacao, in the nut, is sold in his neighbourhood (300 miles from London) for 1s. 2d. per lb., and it may be roasted in any family at the cost of an additional penny. It is very desirable that it should be roasted by the consumers themselves, at intervals not exceeding five days, as the shopkeepers do not roast frequently enough, and the strength and aroma of cacao, as well as that of coffee, cannot long be preserved after the bean has been roasted, and still less after it has been ground. It may be roasted in a shallow dish, either in an oven or over an open fire; but, for retaining the flavour of the cacao, the oven is best. The pollock should be roasted separately, and ground or pounded with the nut. Three-quarters of an ounce of this powder, added to a pint of hot water, and boiled for a short time, will afford a good and cheap breakfast for one person. Milk and sugar may be added in the usual manner. The quantity of cacao employed would cost but three farthings; but, no doubt, an ounce of the powder would make the beverage more nourishing and palatable. Our correspondent, however, thinks that *cacao-paste* is the best and most economical form in which the article can be employed, when sold for 1s. 4d. per lb., as is the case in some shops, though not in country places. Three-quarters of an ounce, dissolved in boiling water, makes a pint of cacao at once, without further trouble or delay, and of better quality than that from the powder.

Similes from Firdousee.—The readers of the 'Penny Magazine' having, in a former Number, been introduced to the Persian poet Firdousee, will, perhaps, be pleased to see the following similes, imitated from that author. They are both taken from the 'Asiatic Journal' for 1825.

If Eavy's bitter plant in Eden grew,
Manured with virgin honey at its root,
And moistened ever with ambrosial dew,—
Acrid and poisonous still would be its fruit.

Bright thoughts and sparkling language, unexpressed,
Conceal'd or slumbering in the human breast,
Are like a diamond lodged within the mine;
Darkness and dross its dazzling beams confine:
Withdrawn from thence, its liberated ray
Blazes abroad, and emulates the day.

MUSIC.—(Continued.)

We have now found fault enough with everything and everybody, and it remains to try to suggest the means of improvement without further digression. But this we cannot do without effort; for at this moment, as we sit down to write, comes the identical fiddler, who is always to be found at — o'clock on ——— evening in ——— street, and favours us once more with doleful airs, no two notes of which are in tune except by *compensation of errors*, that is, his strings being wrong and his fingers also, it happens that between the two he is occasionally right, one correcting the other. We conquer this temptation to write once more against street music, and proceed.

The unpractised ear universally prefers the human voice to any instrument, and perhaps we may say that a great portion of the really musical world does the same. This is lucky for our purpose, because the cultivation of the voice happens to be the only method by which the great mass of our fellow-countrymen can ever hope to attain any knowledge of music. Singing in parts is delightful, when the voices accord well; and there are countries where the most humble peasant can have this gratification in his own family, or with his neighbours. But before singing can be learnt, the

reading of music must be acquired, and for the most part by the individual himself, without instruction. And here lies the great difficulty. The country might be inundated by the cheapest music, but it would all be so much waste-paper, unless efficient means were provided to enable every one to teach himself the meaning of all the dots, bars, lines, &c. And here some sounding medium must be provided: for nothing will enable us to put a sound on paper. Cheap instruments must precede cheap music; no matter how simple their construction, or how limited their power of execution: a guitar (fretted) with one string would be sufficient, just to enable the learner to study the different intervals. But an instrument of some sort there must be; and, therefore, to the consideration of the practicability of introducing one we will here confine ourselves, observing only that, after this, the reading of music would be more easily learnt than the reading of English.

As it would be rather dry work learning to read music upon a simple *monochord*, (as the guitar above-mentioned must be called,) and as it would be very desirable to enable the beginner to play the simple airs which he knows as soon as possible, some other mode must be thought of. At first it struck us that the Pan's pipe would answer the purpose, being cheap and easily learnt; but, unfortunately, this instrument is seldom in tune, and it wants the semitones: the introduction of pipes for these among the others would render the instrument difficult to perform upon, but without the semitones very little can be done.

Here then is a fair field for all mechanics who have been, or are, employed in the construction of musical instruments, to exert their ingenuity. And we promise any one who can succeed in producing a satisfactory result, under the following conditions, to make his name and invention known from one end of the country to the other, without any expense to him, so soon as we shall be satisfied that the conditions are fulfilled, or even that most of the difficulties are overcome:—

1. It must be cheap, and not very liable to get out of order. By cheap we mean that, for a moderately large demand, the price must be under five shillings.

2. It must be in perfect tune, and well tempered, by which we do not merely mean that it can be played in tune by one who knows how, as is the case with a flute or violin, but that any one must be able to produce as perfect an interval as the instrument will give, as in the case of the piano or organ.

3. Its range must be at least two octaves, with all the semitones complete, beginning with the lowest *a* (under the lines) of the treble clef. If it could be made to extend so far as two octaves and a half, it would be all the better.

4. It must admit of simple airs being played upon it, such as are most commonly sung—of such a degree of difficulty, for example, as the well-known air 'Life let us cherish.'

5. It must not be very loud or full, the main object being to teach true intervals, which would be better done by a note of the quality of a tuning-fork than that of an organ-pipe.

In addition to the above, it would be desirable that the instrument should be struck or drawn with a bow, rather than blown, for the convenience of trying the voice, but perhaps this may be unattainable. The production of such an instrument as described above, or at least approaching to it in good qualities, might do much to lay the foundation of a correct musical taste in this country.

Upon considering the various means which might be used to reach the end, we find ourselves stopped by not knowing the extent of the practical difficulties which would occur. The Pan's pipes might certainly be provided with additional tubes, or an apparatus might be

contrived to lengthen or shorten those of the diatonic scale, by a fixed quantity. Then the question of expense is the only one which arises. To answer the end with reeds must be almost impossible, as each instrument would require trial and adjustment. But is the reed the only material which could be used? could not thin pipes of sonorous wood or metal be made to supply their place?

Anything of the organ species would be liable to get out of tune: but were it not for this, a small barrel-organ, containing some very simple lessons, the notes to which should be contained in an accompanying book of instruction, would, to a certain extent, answer the purpose.

A common toy (we forget the name), in which plates of glass are struck by a hammer, is not only always out of tune, but the glass is apt to yield harmonics, which confuse the fundamental note, and the tone is not sufficiently pure. But if springs, attached to a sounding-board, to be struck with a hammer, could be made to produce a steady tone for a few instants, in any way similar to that of a tuning-fork, the end would be very well answered, provided the machine were not too expensive.

The instruments which are usually constructed will do but little towards effecting any change:—First, because they are too dear; secondly, because most of them cannot be played in tune, except by a proficient, which renders them no guide for an uncultivated ear; thirdly, because, being adapted for great execution, and requiring a good deal of practice, more time and trouble is thrown away upon them than most people can afford, or than is requisite for mere elementary purposes. Not that the time is lost to those who wish to become musicians, and have sufficient natural capabilities; but to all the rest, the mastery of the violin, flute, or clarionet, would be like spending time and money in building piers when there is not enough of either to finish the bridge. A simple instrument, such as we hope some will endeavour to construct, would be the mere stepping-stone over the gulf which separates written symbols from sounds; and when the object is accomplished might be abandoned.

But, it may be asked, why not at once recommend the adoption of some of the instruments already in use; which, if all were put in the way of hearing correctly played, would do much to fix correct ideas of musical intervals? Unfortunately, there is little hope of any such result being speedily attained. Where a taste is to be awakened which, if it exist at all, is in a very dull state, it is necessary that the stimulus should neither cost much money nor trouble, and that it should be applied to the particular point on which there are the strongest popular predilections. The makers of musical instruments have not yet attempted anything at once cheap and sufficient, and the greater part of musical books of instruction are very obscure. But if we were to recommend an instrument to be made sufficiently cheap, if possible, for the working classes of this country, it should be the guitar. The difficulty of tuning should be got over by selling separate tuning-forks for each string, and if this could be done there would be the following advantages:—Though the guitar admits of very little, either of tone or execution, yet that little is what is technically called *harmony*; that is, proper combinations of notes can be struck at once, and in this it would be superior to the flute or clarionet, which only produces *melody*; that is, the simple consecutive notes which make up the *air*. Next, the little that an ordinary player can ever hope to do on the guitar can be soon done; a very few lessons, with a proper book of instructions, would suffice to enable the beginner to please himself and others. This is hardly so much the case with any other instrument,

and much more than compensates (for our purpose) the limited and feeble character of the one of which we speak. Thirdly, it can be played in tune so soon as the strings are put in tune; in which we would aid the learner by the addition above-mentioned. Fourthly, being entirely under the command of the finger, it admits, all things considered, of great expression. And, what is the best of all, it is a good accompaniment for the voice; and we do not see why, with half a year of self-instruction, a very ordinary singer might not render his performance a source of pleasure to himself and others.

If the demand could be made to exist, we feel convinced that the price of these instruments might be very much cheapened. We do not, of course, allude to the highly-polished, six-stringed instrument, with its endless screws for adjustment, and its mother-of-pearl bordering: but to something of a more humble degree of finish, which might, nevertheless, discourse very tolerable music in proper hands. What is there in the condition of the Spanish labourer which should enable him to possess something beyond the reach of the English one? Nothing but this:—that the Spaniard will buy it, if it be manufactured for him at a moderate rate, and the Englishman does not, as yet, care about it.

We have heard that, some time ago, if not now, musical societies were not uncommon in our large manufacturing towns. We should be glad to know whether this is still the case, and what sort of music was most prevalent?

And here we must stop; for there would be little use in pointing out what steps might be taken if something were attainable which has not hitherto been attained. If ever the day should come when musical knowledge is almost universal, the public will feel the benefit in more ways than one. In Molière's well-known comedy of the 'Bourgeois Gentilhomme,' the music-master, who does not think small things of his art, wants to prove to his pupil that all disorders and wars come of people not learning music, as follows:—

Music-master.—"Does not war come of the want of union among men?"

M. Jourdain.—"Very true."

Music-master.—"And to make all men learn music, would not that be the way to put them all in *harmony* together, and bring about universal peace all over the world?"

M. Jourdain.—"You are quite right."

Without going so far as to think that an orchestra would be a good commission to settle a disputed boundary, or the meaning of a treaty, we are of opinion that social quiet would be much promoted by the introduction of an amusement on which no question, either of politics or theology, can arise. The hours which are spent in society, among all ranks, are, for the most part, filled up with fierce politics, or fiercer criticism on public and private character. The community wants a relaxation from the continual discussion which occupies it, and which renders us all mental gladiators, intent upon nothing but the attack or defence of opinions. We are for the march of mind; but we think it would march better to music.

THE ISLAND OF MILO.—No. II.

The ruins of the ancient theatre on this island have escaped the notice even of the correct and minute Tournesfort, and few modern travellers mention them, though they are not less considerable than many of the remains elsewhere, which have been so often and particularly described, whilst the site they occupy is one of almost matchless beauty. On the side of a conical hill, somewhat lower than the summit on which the town

stands, and a little to the north-west of it is a natural hollow of an elliptic form, and round this the ancients built their stone seats in ranges above each other, leaving these to be backed by the hill itself, and the whole open to the bright heavens above them. From this lofty position, on the face of the rock, the view is enchanting. The blue waters of the Mediterranean, at a great depth below, roll at the feet of the spectator, and stretch far away before him, dotted with numerous islands. Nothing intercepts the view. Whatever may have been the character of the representations and amusements that attracted the ancients to this spot, the exquisite spectacle of nature here presented, the purity of the air, the glorious brilliancy of the sun, and the transparency of the atmosphere, so seldom clouded in this happy clime, ought at once to have filled their souls with happiness, and raised them to the contemplation of the Giver of all good.

In the greater part of the hollow the seats have been broken down, and removed by the natives to build their houses and stables; but one side of the theatre is still tolerably perfect. Scattered over the arena, half buried with earth or covered with weeds, were several curious pieces of wrought marble, some of which the peasants dug up and sold to a French man-of-war while we were at Milo. The theatre, or rather amphitheatre, must have been small. The annexed engraving, from a sketch made on the spot, may convey some idea of what remains of it. The building on the top of the hill behind it is a ruinous, crumbling fort, erected in comparatively modern times. The island in the distance, of which only a part is seen, is Argentiera, the Cimolus of the ancients, which, as well as Milo, was celebrated for producing chalk and a species of earth admirably suited to the purposes of washing linen, &c.*

Another of our excursions was to old Milo, which, in the time of Tournesfort, was the *town* of the island, and contained a population of 5000 souls. When we visited it there were only three or four families of the poor islanders remaining on the spot—the houses, which had been nearly all two stories high, built with stone, in a very neat style of architecture, and which evidently dated from the period when the Venetians possessed this and other islands of the Archipelago, were all in ruins; and among these rent walls and roofless edifices, a temporary, scanty, and not very welcome colony had taken up its abode. This colony or garrison consisted of about fifty Sphactiotes or Greek mountaineers from Candia, who had been engaged by the new government in the Morea (if we can apply the name of government to the anarchy that existed in Greece in 1827) to defend the Milotes in case the Turks should make a descent on the island. Had such a descent been made, from the smallness of their numbers, the men from Candia could have afforded no protection—they would have taken to their boats and run away, leaving the islanders to be massacred, as had already happened in the beautiful island of Scio and elsewhere. They were, in fact, just strong enough to oppress those they came to protect. They levied contributions, in their own way, on the defenceless, impoverished Milotes, and yet were never satisfied, but continually quarrelling and recurring to deeds of violence and insult. We had already read and heard much of the very bad character which both the Turks and Greeks of Candia bear throughout the Levant, and certainly what we here saw of the Greeks of that place was not calculated to prepossess us in their favour. As we arrived among them in the ruined town they were nearly all firing their rifles and pistols like madmen in the narrow street. One of our party had a very narrow escape from a rifle-ball. They were exceedingly fine-limbed men, but in countenance they

* This earth is still used by the natives of Milo instead of soap.

were at once cunning and ferocious; their dress (something like the Albanian) was very picturesque, and, in most instances, fine and costly, but, almost without an exception, they were disgustingly dirty. Several of them were suffering under the malaria fever, to which nearly all the low land of Milo is now exposed.

Tournefort mentions, that in his time, this town, which is situated in the plain at the distance of about a mile and a half from the head of the port, was extremely unhealthy, on account of vapours arising from salt marshes and other stagnant waters in its vicinity, and from the scarcity of good wholesome water. He adds two other causes of insalubrity: *i. e.*, the exhalations arising from the sulphur and minerals which enter very largely in the formation of the island, and the dirty habits of the people who permitted all sorts of filth to accumulate in the streets. The first of these two causes has, we suspect, little to do with fevers; but no one can doubt the pernicious influence of the second of them. The unhealthiness of this spot induced the Milotes to remove the town to the top of the island, which, altogether, in 1827, did not contain a resident population of 500 souls. Other influences, besides those of malaria, must have contributed to this awful decline of prosperity, and these are to be found in the notoriously oppressive and every way vicious government of the Turks. When Tournefort was at Milo, he found extensive olive-groves, large tracts of the island well cultivated with corn, barley, sesame, and cotton,—the hills round the port were covered with vines; and melons, French beans, and a variety of other vegetables were profusely grown. When we visited the island, nearly all this had disappeared, and the diminished population, with fruitful lands around them, seemed generally to be suffering great poverty and privation. The small quantity of cotton still cultivated was of that brilliant white hue for which this product of Milo was celebrated in ancient times.

Tournefort also informs us, that the island, in his time, contained eighteen churches and thirteen monasteries, of all of which he gives the names and situations. Now, there is only the little church or chapel on the hill side, where we witnessed a funeral, together with three others equally poor and mean. The calayers*, whose loss is scarcely to be regretted, had entirely disappeared.

Between the old town in the plain and the head of the bay or port, there are natural warm baths, which we entered by crawling through some passages (formed partly by nature and partly by art) in the side of a rock. These passages lead into two subterranean chambers or caves of inconsiderable size, and in each of these a spring of warm water, exceedingly salt to the taste, wells out and fills a shallow basin. The heat of this water is much less than that of the hot spring in the subterranean passage called the Bath of Nero, at Baia in Italy, in which we had often seen an egg boiled in three minutes; whereas, into these springs at Milo we could put our hands without inconvenience. The warmth of the atmosphere of the caverns, however, was greater than that of a Turkish vapour bath, and made us perspire most profusely. Still nearer to the shores of the bay other hot mineral water is cast up through the sand in little streams, some of which are boiling hot. These springs do not seem to be confined to any particular spot, and even bubble up under the waters of the sea. We were somewhat surprised, two or three days after our arrival, whilst bathing, to come suddenly to a place where the temperature of the water of the bay was very materially changed, and, in swimming towards shore and getting into shallow water, we found the sand so hot in several places that we could not bear to touch it with our feet. The same thing,

* Monks.

however, had before happened to us in several parts of the bay of Naples, near to the roots of Mount Vesuvius, and the other craters of that volcanic district, on the coast of Sicily, in the neighbourhood of Mount Etna, and among the Lipari Islands.

The island of Milo is, indeed, wholly volcanic; and the fire that raised its plains above the sea, and projected its lofty mountains, still burns in most places a very little below the level part. Sulphur of an excellent quality is produced all over the plains; and there are large beds of alum of various kinds, and all of the best quality, which were dug with great profit until the Turks loaded them with such heavy taxes and fees that the islanders shut up the mines and abandoned that branch of trade altogether. It is curious to observe, when any trade has once been turned from its course, how difficult it is to bring it back into its old channels; but the now organized government of Greece may in time derive benefits from these minerals, as also from the beds of iron ore which are extensive in several districts of the island.

On the exterior coast of Milo, several springs of hot mineral-water ascend through the sands into the sea in much greater volume than those we observed in the bay. At one point, just on the edge of the shore, where these waters can be caught before they mix with the sea, they are taken medicinally by the islanders, who, at our time, seemed scarcely to have any other medicine, or, indeed, any other physician.

One of our excursions was to the lofty summit of Mount Saint Elias. Crossing the beautiful bay, nearly in a direct line from the anchorage-ground, we landed on a rough, solitary strip of beach, a little inland of which was a curious, small, but rather picturesque lake. The loneliness on this side of the bay was extreme. Near the lake there was one small cottage; but, except this, we saw no human habitation, nor did we meet with a human being in the whole course of our walk. The sides of the mountain, as we ascended, were covered with thick brushwood, and, in many places, with trees of small growth,—with sweet-scented myrtle, and the most beautiful shrubs. Still higher up, they were broken into fine, bold crags, among which we were told that, as in those of Corsica, Sardinia, Candia, and one or two of the larger islands of the Archipelago, the mouflon, or wild sheep, is still to be found. We, however, certainly saw nothing of the sort; and, on inquiring afterwards from some of the old inhabitants, we did not receive very satisfactory assurances that they had ever seen any. Animal life, indeed, of all sorts, seemed as scarce as human life in Milo; for, save lizards and small snakes, some scanty colonies of crows, and a few asses and mules, we scarcely saw any living thing there. Our great reward, which, in truth, was the only one we counted upon, when, after a most fatiguing process of walking, crawling, and climbing, we reached the top of this mountain, was the view it afforded,—a view much more extensive than those from the present town and the ancient amphitheatre. Nearly every inch of Milo, with its inferior mountains, its slopes and valleys, and magnificent port, lay spread at our feet like a map; and, on the blue sea, some close to us and some spreading far away, we could see with peculiar distinctness the islands of Antimilo, Argentiefu, Siphanto, Serpho, Policandro, and a score more of the "fairy Cyclades," which literally "shine in the sea," as Horace describes them.

The Candiotte garrison did not at all improve on longer acquaintance; and we never went to the old town without being disgusted by their filth, turbulence, and insolence. But this was not all. Two nights before we sailed from the port, an open Turkish boat,

* The entire circumference of Milo is calculated at about fifty miles. Its form is almost that of a circle.

coming from and going to some place in the Archipelago still in possession of the Mussulmans, was driven, in consequence of contrary winds and currents, and the unskilfulness or carelessness of those on board, to the back of the island of Milo. When the Candiotes, who had sentinels at different points, learned this, they rushed to the spot, and, though the boat was small and contained only eight individuals, two of whom were women and three children, who all stated their circumstances and pleaded for mercy, they savagely fired into her and killed one Turk and wounded another, and also a little boy. They then dragged them on shore, and announced their valorous triumph by firing off guns and pistols. It was near midnight, and we were smoking our cigars on deck when we heard these discharges, which, for a moment, induced us to believe that a Turkish force had landed on the island. Our surprise and abhorrence were great on learning the next morning what had really happened, and, moreover, that the Candiotes considered their Turkish prisoners as slaves, and were trying to sell them as such among the Greeks of Milo. In consequence of these proceedings, the officers of the Dutch sloop-of-war, which was by this time the only armed ship left in the bay, together with ourselves, had a long discussion with these savages, the Greek who kept the coffee-house, and who spoke both Italian and English, acting as our interpreter. We represented how people in the circumstances of those in the Turkish boat were treated by all civilized nations; but we could awaken in them no feeling of shame for what they had done; and when we spoke of the unchristian, abominable practice of making prisoners of

war slaves, the only answer we could get was, that they did by the Turks as the Turks did by them. It was in vain we explained to them that it was in consequence of these and their other barbarous practices that the hearts of all Europe were set against the Turks, and that the great Christian powers would (as they did a few months after) interfere with a strong hand to prevent all such excesses. They still only answered that the Turks, when they took them, made slaves of them, and that they would make slaves of the Turks, and keep or sell their present prisoners as they chose. The Dutch captain did not consider himself authorized to take more energetic measures. In the course of the day, however, the French vice-consul made the Candiotes deliver up the two Turks who were wounded, and whom he had carried to his own house. We subscribed together for the price demanded for one of the unfortunate women, and the keeper of the coffee-house bought the other for ten Spanish dollars, or about two pounds sterling. He said he would keep her until an opportunity occurred of imparting her and her companions' situation to their friends, who would, in all probability, find means, through some English or French ship-of-war, to remit a ransom for them all. Whether this happened, or how the Candiotes treated their captives, we know not, for the next day, most heartily sick of these barbarians, we left Milo, and never returned. It must be added, however, in justice to the poor native Greeks of the island, that they were a mild, inoffensive people, with a good deal of natural talent, and of that natural gracefulness of manner and carriage which so remarkably distinguishes all their race.



[Remains of the Amphitheatre at Milo.]

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THE MALAY TAPIR.



[Indian Tapir.]

The tapir was first known as an American animal; and Buffon, in laying it down as a general rule that the animals of South America do not exist in the "Old World," pointed particularly to the tapir as a creature eminently peculiar to that continent. The contrary has of late years been proved; for not only have two fossil varieties been disinterred in France, Germany, and Italy, but the animal has actually been found existing in the peninsula of Malacca, and in Sumatra. This variety is represented in our wood-cut, and may be thus described:—The Malay tapir resembles in form the American, and has a similar flexible proboscis, which is six or eight inches in length. Its general appearance is heavy and massive, somewhat resembling the hog. The eyes are small. The ears are roundish, and bordered with white. The skin is thick and firm, thinly covered with short hair. The legs are short and stout; the fore feet are furnished with four toes, the hind feet with three. In the upper jaw there are seven molar teeth on each side, one small canine inserted exactly on the suture of the incisor bone, and in front six incisors, the two outer of which are elongated into tusks: in the under jaw there are but six molars; the canines are large, and the number of incisors, the outer of which are the smallest, is the same as in the upper jaw.

Naturalists have been unable to detect any essential
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difference between the Indian and American tapir; but there is a marked difference in colour, and the appearance which the former presents is not a little singular. The American tapir is of a dusky bay hue; but that of Malacca is strangely party-coloured. It is quite black on the proboscis, head, neck, and as far as the extremity of the fore-quarters; then its body becomes suddenly of a light grey approaching to white, and so continues to about half-way across the hind-quarters, when the black hue, without any softening off or mingling of tints, again prevails. The legs are quite black. The animal, in fact, looks precisely as if it were all black, but covered and girded round the body with a white stable-cloth, which leaves uncovered the head, neck, shoulders, legs, and part of the hind-quarters, and tail: so sharply and, to appearance, so artificially does the white band cut the black. But although the hues they assume are not the same, a change of colour with increase of age is common to both the animals of the old and new world. The American tapir, when young, is striped and spotted like a deer; the East Indian, at the same period of life, is beautifully spotted with brown and white.

All travellers who have described the tapir, whether as it exists in South America, or in Malacca and Sumatra, agree in representing it as the most docile of creatures. Its perceptions are quick, and its affections

very strong. According to some well-authenticated anecdotes, it is possessed of all the attachment and fidelity to its master which render the dog so interesting an animal.

The following account of a very young tapir, which Major Farquhar had alive in his possession, forms part of a communication made by him to the Asiatic Society:—"It appears that until the age of four months this species is black, and beautifully marked with spots and stripes of a fawn colour above and white below. After that period it begins to change colour, the spots disappear, and, at the age of six months, it becomes of the usual colour of the adult." Major Farquhar says, that he found this animal of a very mild and gentle disposition; that it became as tame and familiar as a dog; fed indiscriminately on all kinds of vegetables, and was very fond of attending at table to receive bread, cakes, or the like.

"The living specimen," Sir S. Raffles adds, "sent from Bencoolen to Bengal, was young, and became very tractable. It was allowed to roam occasionally in the park at Barrackpore, and the man who had charge of it informed me that it frequently entered the ponds, and appeared to walk along the bottom under water, and not to make any attempt to swim. The flesh is eaten by the natives of Sumatra."

A Sumatran tapir, procured about the same time with the preceding, and presented to the Asiatic Society by Mr. Siddons, the resident at Bencoolen, was also a most gentle animal, but of very lazy habits. He delighted in being rubbed and scratched, and this favour he solicited from the people about him by throwing himself down on his side, and making sundry movements. It is distinctly stated of this animal that another of his great delights was to bathe, and also that he remained a considerable time under water. The amphibious nature of the Indian as well as the American tapir seems, therefore, to be well established, though it was not observed by Major Farquhar in his specimen;—perhaps owing to its ill health—for it very soon died.

The following are the exact dimensions of two Malay tapirs: one a male, described by Major Farquhar; the other a female, killed at Bencoolen.

	Male	Female
	feet. inches.	feet. inches.
Extreme length from the nose to the tail, measured along the back	6 10½	8 1
Circumference of the body	6 0	6 3
Height of the shoulder	3 2	3 5
haunch	3 4	3 9

The first intelligence of the existence of the tapir in Sumatra was given to the government of Fort Marlborough, at Bencoolen, in 1772, by Mr. Whalsfeldt, who was employed in making a survey of the coast. He considered it to be the hippopotamus, and described it by that name; but the drawing which accompanied the report identifies it with the tapir. After this, the animal was not noticed for a considerable time. But, in 1805, when Sir Stamford Raffles arrived at Penang, he was informed that, a short time before, in the government of Sir George Leith, the natives had caught an animal which was, in every respect, the model of an elephant, only of a diminutive size. Unfortunately it was brought from Queda to Penang during the governor's absence, and dying before his return, the servants threw its body into the sea. On a subsequent visit made by Sir Stamford Raffles to Malacca, he made particular inquiries as to the new animal, and from the answers he received he felt little doubt that it was not a miniature elephant, but a tapir. Indeed, on showing the natives a drawing of the American tapir they seemed at once to recognise it. The result of later investigations was quite conclusive

on this point; and, in 1818, there was in the menagerie at Calcutta a living tapir sent from Bencoolen, and Major Farquhar had, about the same time, sent to the Asiatic Society a stuffed specimen and a head, with a paper descriptive of the animal, and giving an account of the discovery. From these an account of the animal, with a drawing, was prepared by M. Diard, and sent to his friends in Paris, where, in March, 1819, M. Fred. Cuvier published it in his great work on the 'Mammalia of the Menageries in Paris.' In the museum of the East India Company there is an excellently preserved specimen of the Malayan tapir, received in England in 1820 from Sir Stamford Raffles. Our wood-cut is from an original drawing of this specimen.

As this animal has not been long discovered, we possess but little knowledge of its habits in the wild state. As, however, it is but fair to presume that its disposition and mode of life is similar to that of South America, it may be well to supply the deficiency by a short account of the species belonging to the New World.

The American tapir has its habitat in South America, and is most abundant in Guiana, Brazil, and Paraguay. It is the largest native animal of the South American continent; and, as well as the variety we have already described, looks like a mixture or compound of various animals. To the eye, it appears as a link between the pig and the elephant; its general form resembling the hog, and its upper lip being prolonged into a small moveable proboscis, shorter indeed in proportion, and applied to a different use, but still resembling the trunk of the elephant. In its habit, moreover, of taking readily to water and remaining under it, and walking about at the bottom of rivers and lakes, it approaches the hippopotamus. That very remarkable feature, the proboscis, is a prolongation of the snout, and can be retracted or extended at pleasure. It is much employed in breaking off the small twigs on which the animal usually feeds. It shuns the habitations of men, and leads a solitary life in the interior of the forests, in moist situations; but selects, for its abode, a spot somewhat dry and elevated. By travelling always in the same rounds, it forms beaten paths which are very conspicuous. It sleeps by day, and comes out in search of food in the night or early in the morning; and sometimes rainy weather will attract it forth by day from its retreat. It usually resorts to the water-side or the marshes; and frequently takes to the water, in which it swims with facility. It is rather uncouth and heavy in its motions on land. Its ordinary pace is a sort of trot; but it sometimes gallops, though awkwardly, with the head low. In its wild state it feeds on fruits and the young branches of trees; but, when domesticated, eats almost any kind of food. Though possessed of great strength, the tapir employs it only in self-defence, which it does vigorously against dogs, but is said to offer no resistance to man; and its disposition, whether in the wild or domestic state, is mild and timid. Lieut. Maw was informed, by the native Indians, that when the onça, a tiger of the country, attacks a tapir, he generally springs on its back. On this the tapir rushes into the thick woods, and endeavours to kill his assailant by dashing him against some large tree. The tapir produces but one young at a birth, of which it is very careful, leading it at an early age to the sea and instructing it to swim. The flesh is dry and disagreeably tasted;—the skin is tough and might be applied to useful purposes. . . .

Lieutenant Maw, R.N., in 1828 bought at Para in the Brazils a young tapir that was perfectly tame. This animal unfortunately died very shortly after its arrival at the gardens of the Zoological Society in Regent's Park, to which it was presented by Lieut. Maw. This he believed to be the first living

specimen ever brought to Europe. The Zoological Society has since had its loss supplied by a full-grown tapir, which seems to thrive very well. From its curious formation and its gentle inoffensive habits, it offers a great attraction to the visitors of these interesting gardens.

SMUGGLING DOGS.

THE recently published 'Report of the Commercial Relations between France and Great Britain' contains some very curious statements on the subject of the fraudulent introduction of articles by means of dogs. Since the suppression of smuggling by horses, in 1825, dogs have been employed. The first attempts at this extraordinary use of animal sagacity were made at Valenciennes; the system afterwards spread to Dunkirk and Charleville; and has since extended to Thionville and Strasburg; and last of all, in 1828, to Besançon. The dogs which are trained to these "dishonest habits" are conducted in packs to the foreign frontier, where they are kept without food for many hours; they are then beaten and laden, and at the beginning of the night started on their travels. They reach the abode of their masters, which are generally selected at two or three leagues from the frontiers, as speedily as they can, where they are sure to be well treated, and provided with a quantity of food. The dogs engaged are always, it is said, conducted in leashes of from eight to ten, and sometimes from twenty to thirty; they do not go willingly, inasmuch as they anticipate ill-usage and fatigue, and therefore they are forcibly conducted. It is said they do much mischief by the destruction of agricultural property, inasmuch as they usually take the most direct course across the country. They are for the most part dogs of a large size; and the 'Report' states, that, being so tormented with fatigue, hunger, and ill-usage, and hunted by the Custom House officers in all directions, they are exceedingly subject to madness, and frequently bite the officers, one of whom died in consequence in 1829.

Tobacco and colonial products are generally the objects of this illicit trade;—sometimes cotton-twist and manufactures. In the neighbourhood of Dunkirk, dogs have been taken with a burden of the value of 24*l.*, 30*l.*, and even 48*l.* Publications hostile to the government have not unfrequently been introduced in this manner. In 1833, it was estimated that 100,000 kilogrammes* were thus introduced into France; in 1825, 187,315 kilogrammes; in 1826, 2,100,000 kilogrammes; all these estimates being reported as under the mark. The calculation has been made at 2½ kilogrammes as the burden of each dog; but they sometimes carry 10 kilogrammes, and sometimes even 12. The above estimate supposes that one dog in ten, in certain districts, and, in others, one in twenty, was killed; but these calculations must necessarily be vague. In the opinion of many of the custom-officers, not more than one in seventy-five is destroyed, even when notice has been given and the dogs are expected.

Among the measures proposed for the suppression of this mode of smuggling, a premium of three francs (half-a-crown) per head has been allowed for every fraudulent dog ("chien fraudeur") destroyed; but this, as appears by the tables, has been wholly inefficient, though the cost has not been inconsiderable, namely 440*l.* per annum before 1827, and 600*l.* since that period, when the premium was allowed in the Thionville district, where the trade is still carried on by the aid of dogs more extensively than elsewhere. It appears that 40,278 dogs have been destroyed between 1820 and 1830, and premiums to the amount of 4833*l.* paid for their destruction. Many severe measures of police have been proposed; too severe, in fact, to be executed: the prefects have required individuals who conducted dogs in leashes to take out passports, as for foreign countries. The attempts, however, have been ineffectual, and the authorities have lent but feeble aid to the suppression of the abuse. There is a law making it penal to possess such dogs; but the difficulty of proof seems to render this law inoperative. There has been hitherto no impediment to the exportation of any but hunting dogs; but it is now proposed either to lay a heavy tax on the exportation of dogs generally from France, or to prohibit the exportation altogether. The former course is preferred; and five francs (about 4*s.*) is mentioned as a sum to be levied on all dogs exported from the smuggling frontier, and it is further proposed to prohibit all sales of large dogs within six miles of the frontiers.

* The kilogramme is equal to 2*lbs.* 3*ozs.* 3*dwt.* 2*grs.*, Troy.

CLOCKS.—No. II.

THE mechanism of a clock seems, at first sight, exceedingly complicated and mysterious, when, in fact, as far as is required for showing the time, nothing is more simple. Suppose a barrel or spindle (fig. 1.) turning freely between two pivots, like the roller of a jack-towel; if a string be wound round the roller, and a weight attached to the end of it, the roller will, of course, turn round until the weight reaches the floor, or the string is all unwound. Nothing remains to be done but to find some means of preventing the roller from turning too rapidly, or too slowly, and to adapt to it some index to measure its revolutions, and the clock is complete. It is evident that when the roller has been made to turn with the required velocity, it will only be necessary to fix upon it a hand (*a*) with a dial. If, for example, the roller turns round once in twelve hours, and the dial, on the face of which the hand turns, be divided into twelve parts, the hand will show, by traversing one division, that one hour is passed; smaller divisions will, of course, enable the hand to point out smaller portions of time.

We now proceed to show how the roller may be made to turn with the velocity required.

If two wheels of the same size be placed in contact, as in Fig. 2, and one turned round, the other will of necessity also turn round, and with the same velocity but in a contrary direction: if one wheel be twice as large round as the other (as at *b*) the smaller wheel will turn twice while the larger goes round only once; because half the circumference of one is equal to all the other, and each half will of necessity drag round the whole of the little wheel. If the wheels be made in any other proportion the effects will be similar, and the smaller will turn oftener than the larger, in proportion to its smallness. Now, although these effects will take place when both the wheels turn freely, the case is altered when the driving wheel, as in all clocks, has a tendency to turn with a much greater speed than is allowed to the driven wheel: if the roughness of the wheels in this instance should at first force the driving wheel to turn slowly, like the other, in time they will both become smooth, and the first wheel will slip round without turning the other. To remedy this, teeth are cut on the edges of the wheels, which lock in each other, so that one wheel cannot by possibility turn round without the other. (Fig. 3.)

To apply this to our original roller (A, Fig. 4), we will suppose it determined that it should go round once in twelve hours. Let it be suspended between two metal plates, B B, C C, as in the figure, and let a wheel D, with seventy-two teeth, be fixed firmly to it, so that the roller cannot turn without the wheel. Now let another roller or spindle, E, be suspended in a similar manner, and at such a distance that a little wheel, F, fixed to it, containing six teeth, may be in contact with the wheel D, fixed to A, and turn with it. As there are twelve sixes in seventy-two, the little wheel—which is technically called a pinion—

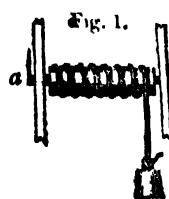


Fig. 2.

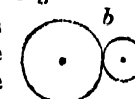


Fig. 3.

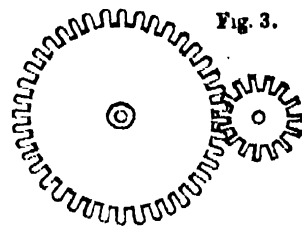
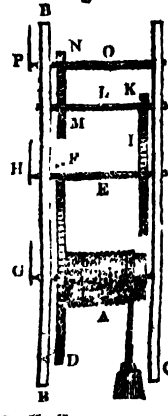
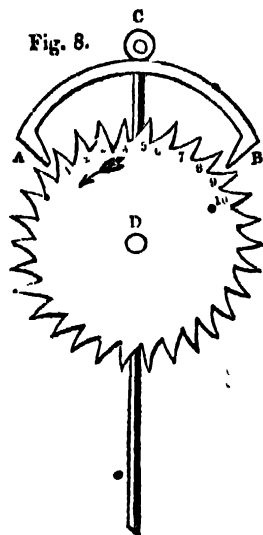


Fig. 4.





hangs from the point C, to which is fixed the steel anchor, A C B, moveable with the pendulum, so that when the latter vibrates to the right, the pallet A strikes against the wheel D, and when to the left, the pallet B does the same. The wheel is provided with teeth (30 in the figure), and being fixed to the spindle O (of fig. 4), it is intended to turn once in a minute. When the clock is at rest, the position is as in the figure; as soon as the weight is drawn up, the wheel begins to turn to the left, in the direction of the arrow, and the tooth marked 1 pushes against the pallet A, as though endeavouring to make the

pendulum vibrate to the left; but as the pendulum is usually long and heavy, it will be necessary to help it with the hand at first setting off. As soon as the pendulum is so far out of the perpendicular as to allow the tooth 1 to pass the pallet A, the tooth 9 strikes against the pallet B, which has been pushed forward by the first movement. The pendulum now returns by its own weight, and rises to the right hand nearly as far as it went before to the left: by this movement the tooth 9 escapes the pallet B, and the tooth 2 strikes against the pallet A. This alternate striking and escaping (whence the name escapement) maintains a constant vibration of the pendulum, and the clock will go with accuracy.

The very small force exerted by the wheel D would hardly seem adequate to keep in action a rod with a heavy weight attached to it; but it must be remembered that a well-suspended pendulum once set in motion will continue to beat for a very considerable time, and that each vibration differs from the preceding by a quantity imperceptible to the senses; consequently a very small force will suffice to make up that minute deficiency.

The mechanism by which the striking the hours is effected is not more complex than that which we have explained; but, being composed of parts not in continuous motion, and, when in action, performing sudden and seemingly irregular movements, its operation is not so readily seen. This part of the subject will be resumed in another Number.

WILD DOGS IN VAN DIEMEN'S LAND.

THE late article on wolves in the 'Penny Magazine' will have prepared our readers to be interested in a short statement of the annoyances to which their countrymen in Van Diemen's Land are exposed from the ravages of wild dogs, the extent of which may be estimated from the strong alarm which is expressed, and from the following general statements which are taken from a speech delivered by Lieut. Hill to a meeting held last September at Campbell Town, in the interior, to consider of the best measures to be taken to remedy the evil. We should have been happy to have been distinctly informed concerning the origin of these animals; but from the satisfaction which is expressed at an existing tax on domestic dogs, and other incidental expressions, we infer that they are the progeny of the domestic animal, "littered in the bush," and allowed to run wild. They commonly associate in packs, like the wolf, and are so cunning, that the isolated attempts made to destroy them have been almost invariably baffled. It

would seem that each pack appropriates a district to itself: Mr. Hill mentions that the same troop of sixteen wild dogs are constantly seen on his lands. They are at present shy of man, but serious apprehensions are expressed that they will not long continue so ceremonious as at present; and a particular anxiety is felt about the children*, for it is not doubted that the savage animals would carry them off if an opportunity offered.

The districts infested by the wild dogs are more especially appropriated to sheep-grazing, none of which have escaped, and a large tract of country is mentioned in which there was not a single flock that had not been terribly visited. In many quarters it had been necessary to double the number of shepherds, and to watch the flocks by night and by day, as well as to surround them with large fires. But none of these precautions have deterred the ravenous animals from making their attacks, to an extent of injury which threatens to bring complete ruin on all the sheep-owners in the island, and consequently to strip the colony of its most staple and valuable article of export—wool. One gentleman lost in three months no less than 1200 lambs and sheep—another 700—another 300! Even in the immediate vicinity of Campbell Town, among other sufferers, one gentleman lost, in the course of a year, 500 lambs and sheep. He states, that after one night's slaughter he sent out two drays, and brought them home loaded with the mangled carcasses: he declares that the increase by births will not replace those destroyed by the dogs, and that he seriously contemplates a timely withdrawing from pastoral concerns altogether. Another gentleman had also suffered so severely as to be obliged to remove his flock off his own land, on the Elizabeth River, to prevent its total destruction. The sensation produced by this state of things is strongly indicated by Mr. Hill's concluding expressions, and the earnestness with which he inculcates the necessity of united exertion. "The country," he says, "is free from bush-rangers; we are no longer surrounded and threatened by the natives they have been removed, the settlers placed in a state of security, and the change is found on trial to be productive of the greatest possible benefit to the natives themselves. We have, then, only one enemy left in the field, but this enemy strikes at the very root of our welfare, and through him the stream of our prosperity is tainted at its very source. Yet be not discouraged, for great although the evil be, it will be found nothing when brought in contact with the intelligence and energy of a whole country. Let us unite then heart and hand in endeavours to avert the impending danger, and, if we do unite, there is not the slightest reason to doubt but that our efforts will be crowned with success."

The resolutions agreed to at this meeting of the persons more immediately interested in putting a stop to this rapidly-increasing calamity were, chiefly, that a society should be formed for the attainment of this object;—that funds should be raised by subscription to be applied in rewards for the destruction of wild dogs;—that one pound should be offered for every wild dog, and two pounds for every wild bitch;—that the attention of the colonial government should be solicited to the subject;—and that Mr. Hill should embody his observations in a pamphlet to be printed for general distribution.

In effect, there seems little difference between this calamity and that produced by wolves in this and other countries of Europe in former times. We have seen how slow the process was before the invention of fire-

* We may here mention an incident which would have been better placed in the paper on wolves, if it had then met our notice. About the middle of the seventeenth century, the Duke of Orleans forbade the wolves on his domains to be destroyed, in consequence of which they increased so rapidly in the forest of Orleans, that they often came and took children out of the very streets of Blois.

arms,—how many centuries elapsed before their extirpation was effected in England. A point of considerable interest in the history of civilization will now be to observe with what comparative facility and speed the colonists—strong in the inventions of social life and the power of co-operation—will effect this object in a country so much more thinly peopled at present than this was at a very remote period.

HOUSES IN TURKEY AND EGYPT.

THE private dwellings in Turkey, and in Egypt, generally present no external appearance of beauty or splendour, however great may be the wealth or exalted the rank of their occupants. Even at Constantinople, with the exception of the Seraglio (or palace of the Sultan), the summer palace on the Bosphorus, and two or three mansions occupied by sultanas or princesses of the imperial family, there is scarcely a house at all striking from its extent, elevation, or architecture. By a precept of their religion all displays of this sort are confined to the mosques or temples, their hospitals, colleges, and other works of public utility. In the strict letter of the law, indeed, no dwelling-houses whatever ought to exceed a certain low elevation, and all ought to be built entirely of wood. The Koran also prescribes extreme simplicity, and the absence of carving, gilding, and every kind of ostentatious ornament, in the interior of houses. But this and sundry other clauses of their sumptuary laws are commonly infringed by the wealthier Mohammedans.

The outside of a house in Turkey and Egypt seldom offers anything to the passing eye except dead walls, with here and there a gazebo (or window latticed in the fashion of female convents in Catholic countries), and, in the front of the house, a large folding-door with a shah-nishin, or balcony, completely covered with trellis-work, and rendered almost impervious to sight. The houses are never numbered,—there are no name-plates on the doors, no inscriptions or armorial bearings on the walls. These walls are generally built up to the height of the first story with stone or brick,—the rest of the construction, which seldom exceeds one story above the ground-floor, is made of wood. We are speaking here of the better kind of houses, for the common abodes are built almost entirely of lath and plaster and light timber. The use of such materials may account for the destructive fires so common in Turkey. These fires frequently owe their origin to the discontents of the people, who have long adopted this irrational mode of showing their political feelings. Many of them, however, are accidental, and are easily to be understood, by remembering that the Turks use no fire-places as we do, but warm themselves in winter by placing shallow dishes of burning charcoal under a sort of table called a tandour, which is made of wood and covered by a stuffed cotton cloth or coverlet, and consequently, like the flooring, matting, and nearly all the materials of their apartments, very combustible. Now not only is this brasier or pan liable to be upset, but, through negligence, pieces of ignited charcoal, used by the Turks (who, when within doors, are almost always smoking) to light their pipes, are often let fall upon the floor, and at times prove sufficient to set fire to the house. But, whether arising from accident or design, these conflagrations are invariably dreadful, should a strong wind blow when they happen. Several times within the last half century nearly the whole of Constantinople, with the exception of the mosques and the few strong stone buildings, has been reduced to ashes.

On entering within the gates of a Turkish or an Egyptian gentleman's house, the scene certainly improves, and often, by its lightness, airiness, and gaiety,

the interior forms a striking contrast with the dull, sombre exterior. The architectural decorations, the articles of luxury and ornament that would offend the scruples of the people and the jealous eye of government, if exposed *without*, are often found collected and united with no unsparing hand *within*.

An open court, often in spite of the law, paved with beautiful marble slabs, and always, when the weather is fine, partially covered with matting of pretty variegated patterns, of which the best is made in Syria and Egypt,—shelving terraces, and parterres of flowers round parts of this court, and gaily painted alcoves, galleries, pillars, and the hanging roofs of the apartments, flanking the court in other parts, furnish very pleasing features to the picture; and if, as is very commonly the case, a marble fountain shoots up its little columns, and the water plashes in a marble basin in the centre of the yard, and a few tall trees partially shade both the house and the open space, the locality is truly refreshing and delightful. In the country mansions of the rich Mussulmans, the enclosed court or square is often very large, and is adorned with a variety of small detached kiosks or summer-houses, flower-beds, shrubberies, and with several fountains of pure sparkling water. But water, so essential to comfort in a warm climate, and indispensable to the observances of the Mohammedan religion, which prescribes frequent ablutions, is liberally supplied even in the houses of the poor, or is close at hand in most parts of Turkey. The civil code of the country contains many curious laws on this head. It proclaims, as a sin against God and man, the refusing to supply one's neighbour with water,—it gives a liberal right of property in land to those who dig a well, discover a spring of water, or make either a subterranean conduit or an aqueduct; and, at the same time, the religious code allots honours little short of sainthood to such as prove benefactors to mankind in this sense.

The ground-floor of gentlemen's houses is generally given up entirely to the kitchen, offices, and the servants and dependants. A broad open staircase, built invariably of wood, leads to the Diwan-khané, which is a broad corridor or saloon, open in front and commanding the court, and access to all the men's rooms of the upper apartment. In most instances this corridor runs the length, and sometimes round three sides, of the house, though it is not always of the same level; but, in many cases, rises or sinks, the communication along the whole line or lines being kept up by means of stairs, which occasionally give a capricious but rather picturesque effect. At the angles and elevated points, this open corridor is generally ornamented with projecting kiosks, in which the domestics in immediate attendance, or persons waiting to have audience of the master of the mansion, lounge and smoke their pipes. These kiosks are prettily painted; the prevailing colours are blue, green, yellow and red;—the designs are in the style we call arabesque. Their front panels, as well as parts of the interior walls of the house, are sometimes adorned with paintings of landscape, fruits, and flowers, but representations of the human form are very rarely tolerated.

The upper or grand apartment is strictly divided into two, the line of demarcation between which is sacred. One of these divisions, called the Salemlik, is occupied by the master of the house, his sons, &c., and is open to all male servants and visitors; the other, called the Harem, which word signifies a "holy place," is devoted to the women, and entrance into it is interdicted to all men. In some of the large mansions there is a sort of neutral ground between the two:—this is called Mabeinn (literally "between two"); but none save the father of the family enjoys access even here. The rooms of reception in the Salemlik that open upon

the great corridor are frequently spacious, seldom very lofty, and always exceedingly plain and devoid of ornament, except in the ceiling, the sofas, and the carpets, or mats on the floor. The walls are painted of a plain, light, uniform colour; over the door there is a framed inscription, in large black letters, or in letters of gold, taken from the Koran; the name of God or Mahomet in Arabic, and the tughra or monogram of the reigning sultan, done in black, red, or gold letters, are sometimes found in two or three places on the superficies of the walls. There is no tapestry, no fanciful paper; and paintings and engravings never impart the beauty and interest we are accustomed to in England. A divan, or a continuous sofa, low and very broad, runs round three sides of the room, and this is the only stationary piece of furniture. There are no chairs, no footstools, no detached ottomans, no tables, no book-cases, no looking-glasses;—in short, there is not one of those numerous articles of convenience, luxury, or ornament, that are met with in most respectable English houses. His broad easy sofa is almost everything to the in-door Turk; he sits on it, cross-legged, during the day, smoking his chibouk, receiving his visitors, or despatching his business. If he has to write, he requires neither table, desk, nor portfolio: he merely places his sheet of paper on his knees, and so scrawls with his strong reed pen. He takes his coffee and sherbet on the sofa, and when he has to dine or sup, a pewter tray, supported on a small low stool, is brought into the room and set upon the floor; he then descends from the sofa, crosses his legs under him, sits down on the carpet or mat, and so despatches his meal, after which, stool, tray, and everything connected with them, are removed. At night he does not retire, as we do, to a separate bed-chamber, nor does he even make use of anything exclusively a bed; his servants or slaves shake up the cushions, lay down a coverlet or a pelisse or two, and the sofa becomes his bed. These sofas, we must mention, are frequently covered with fine woollen cloth, and tastefully fringed. The favourite colour for this cloth is blue: carpeting is sometimes substituted for cloth. Above the sofa, and within reach of a person sitting cross-legged upon it, there is here and there a little shelf to hold such things as may be most frequently needed. A great Turk, however, rarely gives himself the trouble of raising his arm, but when he wants anything he summons a slave, not by ringing a bell, but by clapping the palms of his hands together. To enjoy the advantages of air and shade, all the windows, which reach from the roof nearly to the level of the sofa, are furnished with broad wooden blinds, painted green, and which can be wholly or partially closed. The curtains to the windows, when they have any, (which is not often the case,) are of very common printed cotton. The apartments are almost invariably well ventilated, and, in this respect, the architects of more than one Christian country might advantageously study the plans of Mohammedan houses. In Constantinople, where the cold is frequently severe during two or three of the winter months, the windows of the good houses are furnished with glass of rather a common quality, and chiefly procured from Trieste; but in many parts of Asia Minor and Egypt, where, from the uniform mildness of the climate, such a protection is not required, a pane of glass is rarely seen. At the great town of Magnesia, at the foot of Mount Sipylus, the Turks once carried on a good manufacture of stained glass, with which they ornamented their houses and kiosks, but they have long lost this, like so many other branches of industry and art in which they, at one time, undeniably excelled.

The ceilings of the rooms, which we have mentioned as among the most ornamental portions of a Mussulman apartment, are frequently exceedingly beauti-

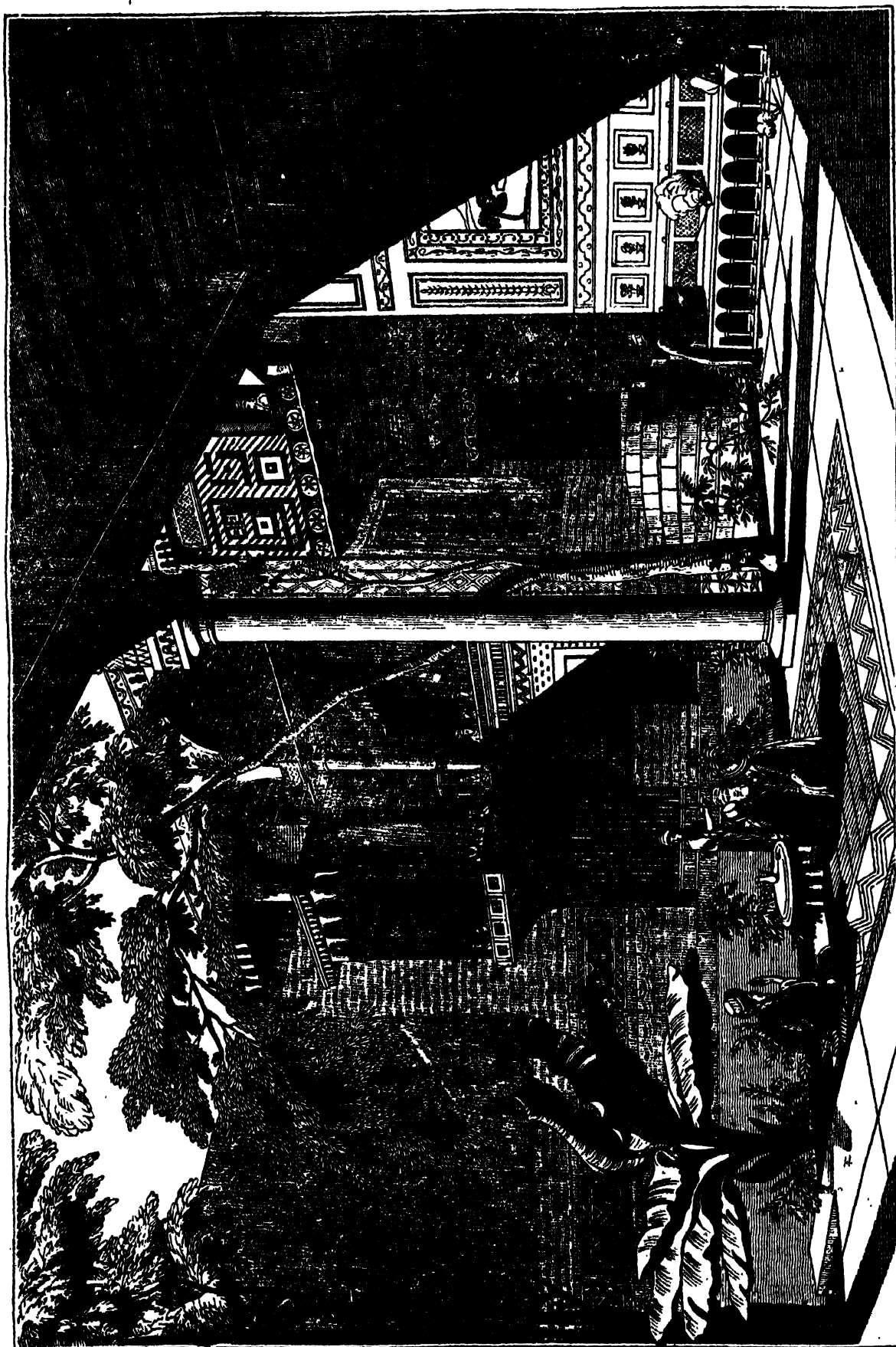
ful. Indeed, in many houses, it seems as if all art and ornament were reserved to be lavished on the ceiling. It is formed of curiously tessellated wood-work, at times representing a mosaic in wood, dotted here and there with golden stars; at times painted in the arabesque style with green, blue, and gold, and in the most varied and complicated designs; and at other times painted in stripes of white, red, yellow, blue, and green, and ornamented with bouquets of flowers. We have mentioned only a few of the varieties. An English traveller who was detained by circumstances at Aleppo, occupied himself for several weeks in making a drawing of the ceiling of a fine room he occupied, and even after so much time, so elaborate were the ornaments, and so beautiful the colours and the gilding, that he left the work incomplete, and in despair of rivalling the hues of the original. The most beautiful and rich of the colours they employ has precisely the tint of the lapis-lazuli.

It would be giving the Turks a chance of having attributed to them a merit they do not possess, were we not to mention that these works of art, as well as the building of their houses, kiosks, &c., are almost invariably performed by Armenians, and other Christian subjects of the Porte.

The carpets on the floors of the rooms are of that good, strong kind so well known in England under the name of "Turkey carpets," and therefore require no description. These carpets are chiefly manufactured in the country behind Smyrna, in Asia Minor, and at Salonica, and its neighbourhood in Europe. They still form an important article of export both to Europe and the United States of America. Turks of very superior wealth or taste, however, generally use Persian carpets, which are finer and much more beautiful both in colour and pattern. The Syrian or Egyptian matting, used at other times, is of a much finer quality than that we have mentioned as being laid down in the court. It is delicately worked, light and cool to the eye, and far superior to anything of the sort we possess. When carpets are used they do not often cover the whole of the room, but are merely ranged in slips near to the sofa; in this case the wooden floor, which in general is neatly put together in the *parquet* fashion, is kept clean and polished. The matting, on the contrary, almost always covers the entire floor: it is bound at the edges with coloured cloth or gilt leather.

Though there are many pleasing features in the interior, the open court and the part of the house very faithfully represented in our engraving, will always be the most striking and agreeable to the European traveller. By attentively examining the engraving, our readers will obtain a good notion of the domestic architecture of the Mussulmans.

It is worthy of remark that, throughout the dominions of the sultan, the Christian and other rayah subjects can neither build their houses so high as the Mohammedans nor paint them of the same colour externally. The elevation of an Armenian, a Greek, or a Jewish dwelling, as compared with that of a Turk, must be only as ten to twelve, and it must be painted on the outside with black, or some very sombre colour. The Turks may indulge in gayer hues, but even they cannot build a house beyond a certain height without incurring heavy fines. All these and numerous other particulars that are constantly interfering with individual liberty and taste are strictly defined by laws, and the Mimar-Agha, or intendant of buildings (a very lucrative post), to whom the execution of these laws is confided at Constantinople, is always looked upon as the most meddling, insupportable tyrant of the place. He exercises an absolute authority over all the architects and builders of the capital and its suburbs, whether in Europe or in Asia.



[Open Court and House at Grand Cairo.]

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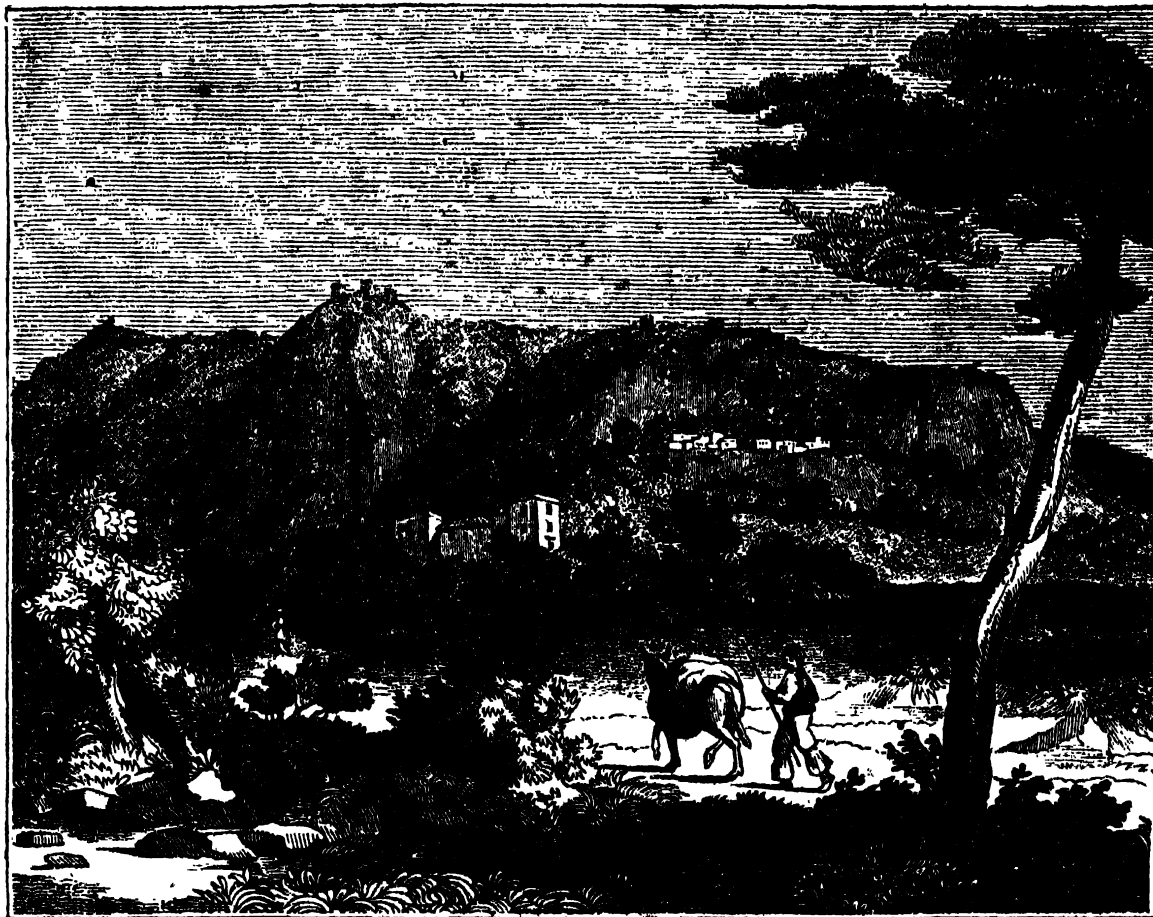
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[MAY 31, 1834.]

THE REPUBLIC OF SAN MARINO.

[From a Correspondent.]



[San Marino.]

THIS little republic is the only one left of the many republics into which Italy was once divided; and is the smallest independent state of Europe. A rude, craggy mountain, about eleven English miles to the south of Rimini, and a few hillocks scattered around the mountain's base, comprise the whole of this republican territory, which is nowhere six miles across. The entire population does not much exceed 7000 souls. In the course of my walk, the bold rock on which San Marino stands, its rugged outline, dotted here and there by a church, a convent, or a tower, formed, for a long time, the most striking feature in the landscape. I entered the dominions of the old republic by crossing a small stream, and, after three miles of ascent, in some parts very steep, and in others running zig-zag along the face of the mountain, I reached the "Borgo," which is a small town containing about 600 inhabitants. About three-quarters of a mile farther on, and much higher, I came to "La Città," or the City, which is the seat of government, and the residence of the more distinguished members of this miniature commonwealth. It does not seem much larger than the Borgo, but it is cleaner and handsomer, and has some buildings of a considerable size and in a pretty good style of architecture.

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There is not a single shop or inn, as nothing is allowed to be sold in the city.

The view from this spot, which is more than 2000 feet above the level of the sea, is particularly fine, and one of the best points whence to enjoy it is the top of the prison. The pleasant town of Rimini, the Marecchia, and the dark Adriatic Sea, lay before me; and turning to the west were the piled-up Apennines, conspicuous among which, from the sugar-loaf form of the mountain it stands upon, was the celebrated fortress of San Leo. Descending from the prison-top, I visited some horrid dungeons, many feet underground, and quite dark. These conveyed a disagreeable impression as to the character of the old republicans, but it was pleasant to learn, and honourable to their descendants, that these dungeons had not been used for many years, and that there was actually only one prisoner in the place, whose offence was rather venial, and his treatment exceedingly mild. I found, however, that the inhabitants still piqued themselves, as in the days of Addison, on their love of justice, and their impartial and rigid administration of it. One of the *cittadini* told me the following story in point:—A Venetian, to whom a subject of the hill republic owed a sum of money, the

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payment of which had been demanded many times in vain, was at length induced, at the recommendation of a friend, to apply to one of the capitanei, or presidents at San Marino. On arriving at the town, he was soon conducted to this dignitary of the state, whom he found with naked legs dancing in a huge tub, treading out grapes for wine. The Venetian, accustomed to the dignity, "the pomp and circumstance," of his own city and government, turned with astonishment from such a dispenser of right and might, and began to repent him of his journey. As he had come, however, he told his story, and no sooner was it ended than the capitaneo despatched an assistant to summon the debtor to his presence. The man came forthwith; and, on being interrogated, confessed he duly owed the money, but said he could not pay it. The indignant capitaneo instantly ordered him to prison, and decreed that his house should be sold to meet the demand. This summary sentence very soon produced the amount of the debt from the San Marino man, who, it appears, was not so poor as he had pleaded he was, and the Venetian creditor returned home well satisfied. Some time after, having occasion to sue another debtor in the courts of Venice, and having experienced "the law's delay" and its glorious uncertainty, he exclaimed (at least so say the citizens of the hill) "Val più un pistad'uva di San Marino che diezi Parruconi di Venezia!"—A grape-treader of San Marino is worth more than ten big-wigs of Venice.

The constitution of the republic is rather aristocratical than otherwise. Although an approach to universal suffrage is nominally admitted, and although it is prescribed in their original charters that the sovereign power is lodged wholly and solely in the Arengo, or great council, in which every family shall be represented by one of its members, all authority has gradually fallen into the council, called "of Sixty," but which in reality consists of only forty citizens. Again, half of the Council of Sixty were, by law, to be elected out of the plebeian order, and the other half, and no more, chosen from among the nobility. Now, however, the council is wholly composed of the richest citizens, whose relative antiquity of descent or aristocracy of blood I could not ascertain.

The Arengo, or popular body, has sometimes been called together of late years in cases of extraordinary emergency. This is done merely by the ringing of a great bell, whose tones can very well be heard all over the republic. An old law enacts that every member who does not attend the summons be fined a sum about equal to an English penny, and that this fine be paid "sine aliqua diminutione aut gratia."

The mis-called Council of Sixty nominate ten of their members, out of whom two are chosen by lot, and named Capitanei Reggenti. One of these capitanei has jurisdiction over the city, and the other over the country. Their power only lasts six months, and they cannot be re-elected to these supreme posts until after an interval of three years. The elections take place in March and in September, but the capitanei only take possession of their office in April or in October. Joined with them there is a commissary, who, according to the old constitution, ought to judge all civil and criminal matters; and also (to avoid the partialities or prejudices likely to influence the subjects of so small a state; where every man knows every body, and has numerous family ties and connexions) he ought to be a foreigner—the native of some other Italian state—a Doctor of Laws, and a man of well-established integrity of character. This officer is chosen for three years, and maintained at the public expense. The capitanei, and the Council of Sixty—of which no one can be a member until he is twenty-five years old, and where no two individuals of the same family can sit at the same time—appoint,

between them, to the few offices of this poor and simple state. The most important of these offices, after that of the commissary, are the physician's and the schoolmaster's. The physician, according to the letter of the constitution, ought also to be a foreigner. He must, moreover, keep a horse wherewith to visit speedily any patient in the country, and his election is only for three years.

At the time of Addison's visit* the schoolmaster must have performed his duty conscientiously, as that elegant writer says, that he "scarcely met with any in the place that had not a tincture of learning;" and, in my time, from what I could observe during a short visit, reading and writing seemed common acquirements enough. Addison also had an opportunity of looking over their collection of laws, which were written in Latin, and had been printed at Rimini, by order of the Commonwealth of San Marino, in a folio volume. The book was entitled 'Statuta Illustrissimæ Reipublicæ Sancti Marini.' In the chapter on public ministers, &c., there is a law, mentioned by Addison, which provides that whenever an ambassador is despatched by the Republic to any foreign state, he shall be allowed, out of the treasury, to the value of about one shilling per day during his mission! I could not help observing even during the short stay I made, that, like some other republicans and citizens of small states, the people of San Marino were exceedingly susceptible and punctilious as to any criticisms made by their neighbours on their laws and customs, or on the dignity of their state. An anecdote is current illustrative of this feeling. About the end of the last century a citizen of San Marino heard an inhabitant of Rimini assert that the Republic was nothing more than a place of refuge for thieves, bankrupt traders, and vagabonds. The words of this sweeping accusation were reported to the "Council of Sixty," who immediately passed a law excluding for ever from the territories of the Republic not only the offender but all his relations, and every person, whether related or not, who bore the same name. Thirty years after this, on a dreadfully stormy night, a man and woman who had lost their way demanded and readily obtained shelter in the house of a peasant at Serravalle, a hamlet just within the line of the republican territory. In the course of conversation, the stranger addressed the woman who had arrived with him by her name, "Signora Bava;"—now Bava was the name of the Riminese calumniator. As soon as the unlucky word was uttered, the peasant started up, exclaiming "Via da casa mia ognuno col nome di Bava!"—Away from my house every one who bears the name of Bava!—and, in spite of entreaties, and notwithstanding the pelting of the storm, the unfortunate woman was turned out of doors.

The origin of this poor little republic, which has survived so many mighty ones that have fallen around her, and still looks with freedom from her rocky seat over her prostrate and enslaved neighbour, Venice, is exceedingly curious and interesting. Towards the end of the third century of the Christian Era, Rimini,—then called by its Latin name, Ariminum,—having completely fallen to ruins, the reigning Roman Emperor, Diocletian, undertook to restore the city, which is advantageously situated on the shores of the Adriatic Sea. To this end, he invited from the opposite coast of the Adriatic, which was his native place†, a number of artists and workmen; and, in the words of an old local historian, "venne ad Ariminum un gran numero

* Addison was in Italy in 1699, 1700, and 1701. His book of travels in that country, which was one of his early literary undertakings, may still be referred to with some advantage, though it describes very different policy, manners, and customs from those which now obtain.

† Diocletian was born in Dalmatia of an obscure family.

di architetti, scapellini, o, diciamo taglia-pietri, e muratori, e conessi un infinità d' operai schiavoni *."—There came to Ariminum a great number of architects, chisel-men, or, let us say, stone-cutters, and bricklayers, and with them an infinitude of Slavonian workmen. Among these Slavonian masons and builders, there was one Marino, a man of a good character, who soon distinguished himself as a fervent friend of the Christian church as then established in Italy. After Diocletian had been the benefactor of Rimini, which, under the hands of Marino and his companions, soon rose from its ruins, that emperor became the scourge of all Italy, by instituting an abominable religious persecution. In ecclesiastical history this is called "The tenth persecution of the Christian church." It was commenced by Diocletian, A.D. 303, and proved one of the most sanguinary of the attempts made to conquer men's conscience and belief by force. In Rimini alone, according to the old historian from whom I have already quoted, "rivers of Catholic blood flowed, not to earth, but to heaven!" Driven to desperation, the Catholic population at last rose against the emperor's pro-consul and their other rulers. A serious conflict, in which Marino took part with the Bishop of Forlì, Forlimpopoli, and other churchmen, ensued, and seems to have terminated disadvantageously for the persecutors. After this Marino withdrew to the rugged, but safe recesses of Monte Titano, as the mountain which is now the territory of the republic was then called. In that solitude he gave himself more and more up to devotion; and the rigid penances to which, in accordance with the notions of that early age, he subjected himself, soon obtained for him the reputation of sanctity, and attracted numbers to the place of his retreat. Many of his countrymen, who had come with him from Dalmatia to Rimini, had brought their wives and children with them, and it seems probable that these formed the original nucleus of the little independent state. At the same time, however, persecution and war would drive some of the native Italians of the plain to the safety of that mountain.

A few years after his first retreat, when something like peace was restored to the church, Marino descended from his rock, and attended an ecclesiastical conciliabulum held at Rimini. By this time the stone-mason was a dignitary of the Catholic hierarchy, for he was styled Diaconus, or Deacon. When he died, full of years and holiness, his ashes were buried on the mountain-top, and miracles were said to be wrought at his tomb. In later years he was canonized by the Pope, and the name of Monte Titano was changed into his name—San Marino. The sanctity thus attached to the spot, and the feelings of religion, have perhaps contributed as much in certain ages to the preservation of the republic from the hostile attack of its neighbours as its smallness, poverty, and inoffensiveness.

When all the free states of Italy, except Genoa and Venice, by their mad internal dissensions, and constant wars with their neighbours, committed political suicide upon themselves, and, one by one, resigned their liberties to the will of arbitrary princes, San Marino was too mean and poor to tempt either of these little despots to take forcible possession of it. The territory of the republic, which had been increased by purchases from a neighbouring state in the twelfth century, and by donations from one of the popes† in the fourteenth century, was, however, in process of time, curtailed and reduced to its original and present limits. More than a century after the time when Clementini wrote, it was again deprived of its liberties. In 1739, Cardinal

* Clementini, *Raccolto Storico della Fondazione di Rimini*, &c., &c., 2 vols., 4to. Rimini, 1617.

† These donations were made as a reward for military services rendered by San Marino to the court of Rome during a contest with the Malatestas—the Lords of Rimini.

Alberoni subjected it to the pope; but this second servitude, like the first, to the Counts of Carpeggno and to Rimini, lasted only "for a short space of time," after which independence and all its privileges were restored.

When Bonaparte with the army of the French republic appeared as the conqueror of Italy, (or, rather, of the Austrians in Italy,) in the neighbourhood of San Marino, he sent a congratulatory deputation to the sister republic, which expressed the reverence felt by her young sister, France, for so ancient and free a commonwealth, and offered the state four pieces of artillery and an increase of territory. This was on the 11th of February, 1797. The cannon were gratefully accepted, but the other tempting offer was wisely declined.

At the end of the last, and at the beginning of the present, century, when political malcontents were numerous and rigidly pursued by hostile governments, San Marino was often the asylum of men of opposite parties at the same time, and the government only preserved peace by strictly prohibiting all political discussion among the refugees. The fear of incurring expulsion from the territory, and consequent seizure by their enemies, seems to have been sufficient to restrain the partisanship of the most violent, for the regulation was strictly observed. Among the most distinguished of these guests was the Chevalier Delfico, a subject of the king of Naples, and an author of some eminence. He lived many years on the mountain, acquired the rights of citizenship, and ever afterwards styled himself in the title-pages of the books he published and in other documents—Delfico, Cittadino di San Marino. I knew this accomplished man in his old age, when he was no longer proscribed, and have heard him speak with grateful recollections of the hospitality and kindness he enjoyed, and of the honest, quiet habits of the poor and simple republicans. Still farther to show his gratitude, he had written a 'History of San Marino,' a curious and clever book, which I have in vain endeavoured to obtain a sight of in England. The edition I was acquainted with in Italy was in quarto, and published at Venice.

At the time of my visit (in 1819), though there were no political refugees, there were several debtors and petty offenders from the neighbouring states that had taken refuge at San Marino. All the citizens capable of bearing arms were regularly drilled and trained. The territory of the republic, rugged as it is, yields a quantity of good wine and fruit, and the pasturage is abundant and fine. There are no springs or fountains on the mountain, but rain and snow-water are plentifully preserved in cisterns and tanks cut in the rock. The wine-cellars, similarly excavated, are deliciously cool and excellent. The wines of the hill are particularly lauded by an old historian of the republic, who says,—"I vini sono così amabili, purificati, gratiosi e buoni che non hanno da invidiare i claretti di Francia." (The wines are so mild, pure, agreeable, and good, that they have no need to envy the clarets of France *.) The largest of the churches, which contains his ashes, is dedicated to San Marino, but has nothing remarkable about it except a statue of the saint over the high altar, which holds in its hand the figure of a mountain crowned with three towers. The mountain and the towers are the appropriate arms of the commonwealth. As I stood by the tomb of the worthy Slavonian mason, I could not but reflect that, although it has not been destined to obtain such a "high and palmy state," his was a more honourable foundation of a republic than that laid by Romulus and his licentious, freebooting associates.

* *Dell' Origine et Governo della Repubblica di San Marino*, di Matteo Vulli, Secretario e Cittadino di essa Repubblica. Padova, MDCCXXXIII.

THE MANNA-TREE.



[The Manna Tree.]

The tree which produces the manna (*Fraxinus ornus*) is an ash of a peculiar quality, and is regarded by Linnaeus as a variety of the common ash. It is indigenous in the south of Italy and in Sicily; and the following account of it, as well as of the processes by which the manna is obtained, is taken chiefly from the 'Voyage Pittoresque des Isles de Sicile, de Malte, et de Lipari. Par Jean Houel, Peintre du Roi, en 1776.' The tree rarely attains a greater height than twenty-five feet, and there is nothing particularly striking in its appearance: it might, on the first view, be taken

for a young elm; but, on more minute examination, its particular character is found in the manner in which the leaf is attached to the branch. Three species, or, more properly, three varieties of this tree have been observed. The first has the leaves long and straight, like those of the peach; in the second, the leaves strongly resemble those of the rose-tree; and the third seems intermediate between these two varieties.

It is when the season is at the warmest that the tree most abounds in sap. Therefore, about the 15th of August the people begin to make their incisions in the

dark. They commence at the foot, making an incision each day, over the preceding, and at the distance of two inches from it, until they reach the lower branches. The incisions are little more than two inches in horizontal length, and are about half an inch in depth. When the season is favourable, they continue to make their incisions so far as the great branches; but though they make no more than one daily, they have, towards the end of September, already made forty-five, which, at two inches distance between them, gives an elevation of ninety inches; and as there are few trunks which are more than seven and a half feet high, they rarely go to a greater distance.

When the knife has with some difficulty made an incision in the tree, the manna begins immediately to flow. It at first is no more than a limpid water; but it gradually congeals as it flows, and is soon hardened to a consistence. The rainy season, which comes on at the end of September, interrupts this work. The heat is then not sufficient to dry the juice, and the rain soon detains it at the foot of the tree, so that it is necessary that the operations should conclude with the warm weather of September.

Having given this general statement, we may proceed to describe more particularly the process which is followed in collecting the manna. When an incision is made in the manna-tree, a leaf of the same is inserted, by the extremity, in a slight horizontal cut below the incision. The juice which exudes from the tree flows upon this leaf which, like a pent-house, conducts it to a vessel placed below. This vessel is very simple, being merely a leaf of the Indian fig-tree, which, in drying, takes the form of a basket, or rather a shell. It is from ten to twelve inches long, and seven or eight in breadth, and forms a sort of vase, sufficiently capacious for the use to which it is applied. Placed at the foot of the tree, it receives the juice, which does not harden until it has remained there some time. The manna thus received and congealed is much more esteemed than that which escapes down the bark of the tree, which is less pure and less fit for use. This latter comes in great quantity when the operation of nature is in its full force. It takes the form of icicles or of knotty reads attached to the tree, full of inequalities and large in proportion to the abundance of the juice. Being sweeter than the purer sort, it is much more in requisition, and is especially preferred by the English. The two sorts, however, are most usually mixed.

M. Houel states, that he often tasted the manna as it flowed from the incisions. It then had a bitter taste, like that of some unripe fruits. This bitterness is owing to the watery matter, the evaporation of which concentrates the sugary parts and leaves them more sensible to the taste. The manna is then sweeter and more agreeable, but is at all times slightly nauseous.

Men and women are indifferently employed in collecting the manna. The same knife which makes the incision serves also to gather the manna,—such as that which lies on the ground near the female, and those which the man and his wife in our wood-cut hold in their right hands; while in their left they have the boxes into which the manna scraped from the tree is received. The tree, near which the woman kneels, is exhibited as “sweet bleeding in the bitter wound” near the base. The collected manna is deposited in baskets and carried away to the magazine where they dispose of it, and whence it is sent away in great quantities to foreign countries.

If the season is not favourable—if the heat is not steady and without rain—the people complain greatly; and if there appears the least disorder in the atmosphere, the saints and the madonnas are assailed with cries and tears from all parts, prayers are addressed to them, and

wax tapers are offered at their shrines, for the grant or continuance of fair weather.

The manna formed a principal source of emolument to the parts of Sicily in which it was cultivated in the time of M. Houel; and the inhabitants were distinguished from those of other parts of that country by their comfortable and pleasing appearance. The medical properties of manna are those of a gentle purgative, particularly adapted to the use of children, and it was accordingly much employed formerly in medical practice. But it has now gone nearly into disuse, as we are in possession of so many substances that are more efficacious. This circumstance has probably had considerable effect on the prosperity of the places which were formerly enriched by the culture of the manna-tree. The drug was some time since subjected to chemical analysis by M. Bouillon la Grange, who found it to consist of two distinct substances, one nearly resembling sugar, and the other probably analogous to gum or mucilage, as, when treated with nitric acid, it was found to yield the mucous acid.

We may be at liberty to doubt the following pretty story concerning manna, even though we find it in Jeremy Taylor. “When the kings of Naples enclosed the gardens of Oenotria, where the best manna of Calabria descends, that no man might gather it without paying tribute, the manna ceased till the tribute was taken off, and then it came again; and so, when after the third trial the princes found they could not make their gain of that which God made to be common, they left it as free as God gave it.”

THE WILD DOG OF THE WESTERN GHATS OF INDIA.

We are indebted to that very valuable institution the Asiatic Society for the account we now present to our readers of the dog in its natural wild state. That affectionate animal has been so long, so constantly, and, in almost every part of the world, the faithful companion of man, that we have almost lost all sight of him in his free, savage condition.

The very limited accounts of the wild dog and its varieties to be met with in Shaw's ‘Zoology,’ in Blumenbach's ‘Manual,’ in Cuvier's ‘Règne Animal,’ and other standard works of natural history, induced Lieutenant-Colonel W. H. Sykes, of the Bombay Army, to send a description, accompanied by a drawing, of the wild dog he had become acquainted with in the Western Ghats, to the Branch Asiatic Society of Bombay, who, in their turn, remitted them to the chief Society of London, in whose Transactions both the description and a lithographic drawing of the dog were published.

“In the afternoon of the 15th May, 1826,” says Colonel Sykes, “when encamped at *Bhima Shankar*, the source of the Bhima River, in the Western Ghats, some of the inhabitants of the village, who had been in my employ for some days hunting game, brought me a wild dog. * * * They called it *Colsun*. The creature was dead, but yet warm; they stated that they had followed a pack of them in the morning through the dense jungle, and ultimately coming unawares upon them had struck down the dog they brought by a blow with a stick on the head, the creature not having activity sufficient to effect its escape. We were enabled to account for this inactivity on opening the stomach by finding that the dog had completely gorged itself with the remains of a deer, and the bones of the feet of some digitate animal were also in the stomach.”

The length of this animal, from between the ears to the beginning of the tail, was twenty-six inches; its height about seventeen inches: the tail, which was bushy with hairs, red at the base, but black at the tip, measured eleven inches. The body of the dog, from

the tip of the nose to the base of the tail, was of an uniform bright red colour, being a shade or two lighter under the throat, on the chest, belly, and inside the fore-legs. Its fur consisted of silky and woolly hairs;—the hairs being very short, and without any disposition to curl. The most distinguishing characteristics of the animal were, 1st, the length and extreme narrowness of the head, which, at its broadest part, measured only three inches and a half across;—2dly, the length and slenderness of the body;—3dly, the size and strength of the legs, feet, and toes, as compared with those of tame dogs of about the same size, and with the body of the wild dog itself;—4thly, the great length of the neck, which measured eight inches, or nearly one-third of the whole length of the animal. The fore-feet had five toes, and Colonel Sykes found an elevated, rounded, horny process behind the articulation of the wrist, as in the jackall. The ears were large, erect, broad above, and somewhat rounded at the tips. The posterior margin of the ear had a lobe, or double edge, as in the domestic dog. The pupils of the eyes were red; the iris was brown; the whole expression of the face was that of a coarse, ill-humoured *pariah* dog.*

As all our readers may not be so familiar with *pariah* dogs as the Colonel is, it may be well to mention that the animals so called in India are poor, unowned dogs that wander about the towns and villages, and along the banks of rivers, picking up a living in any way they can. Their condition is much the same as that of the dogs at Constantinople, described in No. 24 of 'The Penny Magazine.' Though they belong to nobody, and never enter their houses, the Mohammedans in India, like their brethren in Turkey, consider it a laudable act of charity to throw out food now and then for these dogs. As to their breed, they are mongrels; but Bishop Heber saw some of them not unlike a large English terrier. The Bishop was also forcibly struck at finding the same dog-like and amiable qualities in these neglected animals as in their more fortunate brethren in Europe*.

To return to Colonel Sykes's wild dog: that gentleman goes on to say that, being anxious to preserve his rare specimen, he took every possible care to prepare the skin properly. He removed the skin from the body, leaving in the necessary bones of the head and limbs, and imbued the inner surface with arsenical paste. The skin was then filled with dry grass, and the specimen was put into a basket with some other skins. On taking up his monsoon quarters at Poonah, the Colonel had the skin of the dog steeped in tepid water, and then the usual process of stuffing with cotton and putting in wires was attempted. To the Colonel's utter surprise, the skin, in many places, opposed as little resistance to pressure or stretching as wetted brown paper would have done. He could not explain the cause of this decomposition; and he found the skins of small deer that had been prepared in the same manner, and in precisely the same circumstances, perfectly sound. The head and feet of the dog, however, remained quite perfect.

From his attentive observations, Colonel Sykes concluded "that the wild dog of our ghauts cannot be identified with any dog of which a description is given in the works of natural history within my reach. It differs from the *Dhole* in having a bushy tail; from the *Chima Sauvage de Ceylon* in its bushy tail and superior size; from the African Wild Dog (likened to a large fox-hound) in its inferior size; and from the *Dingo* of New Holland in its inferior height, general proportions, and colour; from the *Chakal* it is readily distinguished by its superior size, length of body, magnitude of limbs, and by its colour. If naturalists will not admit of there being several species of the wild

dog, we must class the *Colsum* as an hitherto undescribed variety."

The inhabitants of the Ghauts were well aware of the existence of large troops of these wild dogs in their jungles and fastnesses, and entertained some very extravagant notions as to their courage, prowess, and address. Colonel Sykes, while confirming the fact that they pursue their prey in packs, seems to doubt the assertion of the natives that the wild dogs are so bold as to hunt and attack the royal tiger. Bishop Heber had more faith; and in the following passage he not only makes the assertion very credible, but gives a spirited natural history sketch. He saw the specimen he describes in Kemaoon.

"One of the most curious animals I saw or heard of, was a wild dog belonging to Mr. Adam. These animals are considerably larger and stronger than a fox, which, in the circumstances of form and fur, they much resemble. They hunt, however, in packs, give tongue like other dogs, and possess a very fine scent. They make, of course, tremendous havoc among the game in these hills; but that mischief they are said amply to repay by destroying wild beasts, and even tigers. This assertion was at first made, at least in print, in Captain Williamson's 'Field-Sports of India,' but obtained very little credit. None of my Kemaoon friends, however, doubted the fact, which they said was the universal belief of the peasants, and was corroborated by the fact of tigers having been found lately killed and torn in pieces, which could be ascribed to no other enemy. Mr. Traill did not, indeed, suppose that they would actually chase a tiger by preference, but that if, in the pursuit of other game, they fall in with either tiger or lion, they have both the power and the will, from their numbers, swiftness, courage, and ferocity, to rush on him and tear him to pieces, before he would have time to strike more than one or two blows with his tremendous paws. Each of the tiger's blows would no doubt kill a dog, but in the meantime a hundred others would be at his throat, back, and sides, and he would sink under the multitude of his comparatively feeble enemies. Mr. Adam's dog was exceedingly wild and fierce. He was brought for me to see him, led by two men, who held him between them in a long chain, and he struggled desperately all the time to recover his liberty. He has begun to endure, with somewhat more placability, the presence of the man who feeds him. * * * * If he were domesticated, I could conceive his being a fine valuable animal. Of dogs he bears the strongest resemblance to those of the Esquimaux and Kamtschatka-hales, as represented in Bewick's engravings*." This specimen is evidently a different variety from that of the *colsum*, or wild dog of the Western Ghauts.

According to Colonel Sykes, the *colsum* he described is not confined to Bhima Shankar and its neighbourhood, but is found in the southern Mahratta country, and especially in the jungles and hills about Kietor, where the natives call it by the same name of *colsum*, and also tell wonderful stories of its cunning and boldness. In the southern Mahratta states a friend of the Colonel's once came upon a troop of these *colsums*, grouped in various positions under a tree; but they were so wary that they would not let him get a shot at them. "Wild dogs," says the Colonel in conclusion, "exist also in the neighbourhood of the hill-fort of Asseerghur,—some officers of the 23rd Regiment of the Bombay Native Infantry having seen a pack in full pursuit of a wild buffalo. They are met with on the Neilgherries; and a gentleman, recently from those mountains, to whom I showed my specimen, identified it with the wild dog of those elevated regions." The Colonel adds in a note,—"Since writing the above, I am enabled to state that Captain Oakes, of the Bombay

* Narrative of a Journey through the Upper Provinces of India, &c.—A most amusing, excellent work.

* Vol. ii., p. 220, 221.

army, had a colun in his possession alive for a considerable time, and was never able to modify its natural savageness in the slightest degree." This want of success arose in all probability from wrong treatment, or a mistaken system of taming. In another part of the East Indies, Bishop Heber saw a hyana, a much more formidable animal, and one that has always been considered (though in this the Bishop thinks injustice has been done to it) as altogether untameable, which followed his master about like a dog, and fawned on all the persons with whom he was acquainted in almost the same manner.

In addition to Colonel Sykes's communication, the Asiatic Society's 'Transactions' show, on the authority of T. H. Baber, Esq., and Colonel H. J. Bowler, that, besides in the parts of India already mentioned, the wild dog is found along the western coast, very numerous in the Balaghât district, in the Hyderabad district, in most parts of the Deccan, along the whole extent of the woody country in the districts of Ellûr and Rajamahendri, and in parts of Ganjam on the eastern coast of Coromandel. Mr. Baber says there is no doubt that these animals, which run invariably in large packs, kill both cheetahs and tigers,—that all animals, indeed, are afraid of them,—that he himself was once followed for the distance of eight or ten miles by a pack of them, which were prevented from snapping up some terriers and Spanish dogs he had with him, only by repeated discharges of his pistols. This gentleman also informs us, that in the formation of their claws there is a difference from that of the wolf or jackal, resembling in this respect the claws of the cat rather than those of the dog; and he thinks this will account for the circumstance (of which we were not before aware) of these wild dogs always attacking and tearing out the eyes of their prey.

The Good Old Times.—The want of paved streets, of lights, of sewers, and of water, in great cities, were merely inconveniences; but the want of every kind of comfort within their houses leaves us nothing to envy of the enjoyments of our forefathers in those good old times, which are the sad burden of many "an idle song," and the constant theme of repining patriots. We may form a tolerably correct notion of the comforts of the poor about the sixteenth century, from the *luxuries* registered in the household book of the great Earl of Northumberland. From this document it appears that in one of the most noble and splendid establishments in the kingdom, the retainers and servants had but spare and unwholesome diet; salt-beef, mutton, and fish, three-fourths of the year, with little or no vegetables: "so that," as Hume says, "there cannot be anything more erroneous than the magnificent ideas formed of the *roast beef of old England*." . . . "My lord and lady themselves do not seem to fare very delicately: they have set on their table for breakfast, at seven o'clock in the morning, a quart of beer, as much wine, two pieces of salt-fish, six red herrings, four white ones, and a dish of sprats."—*Quarterly Review*.

CAERNARVON CASTLE.

IN the near neighbourhood of the present town of Caernarvon was the town which the Romans called Segontium, but which appears to have been a British settlement before their time, and to have been known by the name of Caer-Seint, or Seint, of which Segontium is merely the Latin modification. The estuary immediately to the north of Caernarvon still bears the name of the Seint, and Caer-Seint would mean the town, or rather fortified station, on that estuary. The old historian Nennius calls the place Caer-Custent, that is, the town of Constantine; and it is stated by Matthew of Westminster, that in 1283, while preparations were making for the erection of the Castle of Caernarvon, a body was found here, which was believed to be that of Constantius, the father of that emperor. The Emperor Constantius Chlorus died at York, on the 25th

of July, 306; but we may take leave to doubt this story of his remains having been discovered nearly a thousand years after in North Wales.

Caernarvon,—or, more properly, Caer-yn-Arfon,—means the fortified city in Arvon; and Arvon means the district opposite to Mona or Anglesey, from which island this part of Wales is separated by the narrow strait of the Menai. The term is used by Gray in 'The Bard':—

"On dreary Arvon's shore they lie."

We believe there are no records that prove a town to have existed where Caernarvon now stands before the conquest of Wales by Edward I., towards the close of the thirteenth century,—although it is not improbable that the inhabitants of the ancient Segontium, which appears to have been then deserted and in ruins, may have before that date transferred themselves to this new station. But it may at any rate be assumed that the town or village, if there already was anything of the kind, was extremely insignificant.

As has happened in many other cases, the present town of Caernarvon has been principally called into existence by the erection of the fortress around which it stands. Caernarvon Castle was erected by Edward I., immediately after the subjection of the principality. The building could scarcely have been begun before the year 1283, and the common tradition is, that it was finished early in the following year. From some ancient documents, however, it appears that the work occupied a space of twelve years from its commencement to its termination,—a much more probable account. The castle is said to have been raised at the cost of the chieftains of the neighbourhood, whom it was intended to overawe and keep in subjection; and, with the like tyrannical policy, the stern conqueror made the peasantry be driven in herds to the spot, and compelled to labour in rearing the pile which was to be at once the monument of the subjugation of their country, and one of the chief strongholds of the foreign dominion under which they had fallen. The name of the architect, or master-mason, as the designation was in those times, is stated to have been Henry Ellerton, or de Elreton. Even these names deserve to be preserved from oblivion,—both because to record them is an honour due to those who have bequeathed to the world any grand produce of their genius or skill,—and for the sake of the history of art, upon which even a name may sometimes help to throw light. If it should be found, for instance, that in any country the earliest architects had generally borne not native but foreign names, that circumstance would afford a presumption that the style of architecture which they practised had been an importation from abroad, and might even indicate the particular quarter from which the knowledge of the art had come. It might help, at least, in Iago's phrase,—

—"to thicken other proofs
That do demonstrate thinly."

What appears to have given rise to the improbable tradition of the building of Caernarvon Castle having been completed in one year is the fact, as to which, we believe, all the authorities are agreed, that Edward's son, who afterwards became Edward II., was born here on the 25th of April, 1284. It is told that Edward, in the persuasion that the opposition of his new subjects would probably be most easily and effectually overcome by humouring their national prejudices, caused it to be announced to an assembly of their principal men that he intended to give them a native of their own country for their prince; on which, as he anticipated, they expressed their gratitude in warm terms, and declared their readiness to yield obedience to the sovereign so appointed. Having received their assurances to this effect, Edward then produced his newly-born son, and

declared him Prince of Wales. It is to be observed that Edward had at this time an elder son, Alphonso, who, had he lived, would of course have inherited the crown of England; so that the arrangement now made does not appear to have originally contemplated the union and incorporation of the two countries. Alphonso, however, died a few years after, when the Prince of Wales became the heir apparent of the English throne. Since this period the eldest son of the King of England has always borne the title of the Prince of Wales from his birth.

A small apartment, measuring only about twelve feet by eight, is still shown at Caernarvon Castle as that in which Edward II. first saw the light. It is in what is called the Eagle Tower, and can only be entered by a door raised high above the ground, and the ascent to which is over a draw-bridge. There is a fire-place in the room, but it must have been in its best days a dark and comfortless chamber, and it is painful to suppose that the excellent Eleanor of Castile should at such a time have been limited to the accommodations of so miserable an abode. If it was deemed necessary, for reasons of state policy, that she should be conveyed to Wales when about to give birth to her child, her banishment to a strange, hostile, and half savage land, little needed to have had its severities aggravated by imprisonment in such a dungeon. It ought to be added, however, that, notwithstanding the tradition of the place, there is much reason to doubt if the apartment in question was really that inhabited on this occasion by Queen Eleanor. It is, perhaps, more probable that she occupied the central room of the tower, which is large and commodious, and to which this may be regarded as merely a closet.

The vast pile of Caernarvon Castle stands on an elevated and rocky site in the north-west quarter of the town, overlooking the Menai Strait on the one hand, and with Snowdon and the other mountains of that range fronting it at no great distance on the other. It

is nearly surrounded by the sea on three of its sides, and a moat has, in former times, been drawn round the fourth. The whole is surrounded by a wall, defended at intervals by round towers. The area inclosed within this fortification is in shape an irregular oblong, and is of great extent. It was formerly divided into two courts,—the outer and inner; but, although the wall itself is still tolerably entire, the buildings in the interior are now in most places greatly decayed, and in some are mere heaps of ruins. There are two principal gates; the one facing the east, the other the west. Over the latter is the Eagle Tower, already mentioned, a lofty and massive structure, with three slender angular turrets issuing from its summit, which crown it with lightness and grace. This tower forms now by far the finest ornament of the ancient castle. It takes its name from a stone figure of an eagle which is placed over the gate, and which tradition asserts to be of Roman workmanship. The imperial ensign is said to have been found among the ruins of Segontium.* The view of the surrounding country from the top of this tower is of great extent and beauty.

Besides the Eagle Tower, and that over the eastern entrance, over the gateway, in which is a statue of Edward I., armed with a dagger, there are numerous smaller towers, all angularly-shaped, but of various figures, some being five sides, others six-sided, and others having eight sides. The walls, which are pierced with narrow slits or loop-holes, are in general nearly eight feet thick; but the thickness of those of the Eagle Tower is not less than nine feet and a half. The only staircase that is not in ruins is that in the Eagle Tower.

The history of Caernarvon Castle has scarcely been marked by any memorable events. In 1294 it was surprised and taken by a band of Welsh insurgents, who put the English garrison to the sword. It also several times changed its masters in the course of the civil wars of the seventeenth century; but it never has stood any lengthened siege.



[Caernarvon Castle.]

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HOGARTH AND HIS WORKS.—No. II.



"The drunkard shall come to poverty, and drowsiness shall clothe a man with rags."—*Proverbs*, xxiii., 31.
"The hand of the diligent maketh rich."—*Proverbs*, x., 4.

[APPRENTICES AT THEIR LOOMS.]

ABOUT the middle of the last century an old play, called 'Eastward Hoe,' was revived at Drury Lane Theatre; it had been previously published in Dodsley's 'Collection.' To this play it is said that Hogarth was indebted for the suggestion of the contrast between the courses of a faithful and virtuous, and a careless and vicious apprentice, which he has delineated in his series of prints called 'Industry and Idleness.' This is by no means improbable, although the painter's treatment of the subject is essentially different from that in the drama. 'Eastward Hoe,' which was the joint production of Ben Jonson, George Chapman, and John Marston, and was first published in 1605, is founded upon an entirely different state of manners from those which prevailed in the days of Hogarth—contrasting as much as the stuffed hose, the long-waisted doublet, and the high-peaked hat of the time of James I., contrasted with the square-cut coat, the long-flapped waistcoat, the periwig, and the buckles, of the time of George II. Before we proceed to our main object of describing this series of the works of Hogarth, it

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may not be uninteresting to furnish our readers with an introductory account of that remarkable and once formidable body,—the London apprentices.

To most readers the vivid and amusing description of the manners and habits of the London apprentices in early times, given by the pen of the 'Author of Waverley' in the 'Fortunes of Nigel' must be well known. The characters of Jin Vin and Frank Tunstall may be considered as no less correct than animated representations of the class to which they belonged. But it is not merely in works of fiction that we meet with frequent notices of the apprentices of London. The chronicles and other records of former times offer many particulars of the manners and conduct of a class of society which has long ceased to exist as a separate body. So entirely is this the case, that it may perhaps be to many persons a matter of surprise that they should ever have had that consequence which at one time they certainly possessed. This consequence was owing to several circumstances. It is well known that the custom which still exists of learning handicraft

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trades by means of an apprenticeship is of very old date. It has indeed been in use in London time out of mind, and appears to have originated as a part of the system of incorporating trades into companies called "gilds," which was established here on the first rise of trade and commerce, and of which we have still some remains in the various companies now existing in the city of London.

These companies have lost in a great measure their original character and intention; but when the system was in full operation,—when every trade had its separate gild—and when, in order that any one might exercise a trade, it was necessary that he should be free of the gild, this freedom being obtained only by serving an apprenticeship to a member of the company,—not only was the number of apprentices very considerable, but they were a distinct class, and formed an important part of the commercial system. They are called in an old tract, "a degree or order of good regular subjects, out of whose, as it were, noviceships or colleges citizens are supplied." They were the dependants upon bodies of considerable importance, and thus derived a consequence from the wealth and influence of those with whom they were connected. Another cause to which their consequence may be ascribed is the circumstance that they seem to have been of rather a superior class. It appears indeed that, in early times, the handicraft trades received a degree of consideration which they do not enjoy at present. It was not permitted to every one to exercise such an occupation. There is an act of parliament passed in the reign of Henry IV., which contains the very curious provision, that no one should put his son or daughter apprentice to a handicraft trade, "except he have land or rent to the value of 20*s.*, by the year," which in those days would be a considerable sum. We are also informed by the historians of London, that the regulations of the city were, that no one should be admitted to be bound apprentice, except such as were "gentlemen born." This is probably to be generally understood, free-born, or not in a state of villenage; although the younger sons of gentlemen were ordinarily to be found, in the days of the Tudors and Stuarts, in the commercial establishments of rich citizens, learning their craft, and serving at their counters. In 'Eastward Hoe,' the idle apprentice says to his master, "Sir, my mother's a gentlewoman, and my father a justice of peace and of quorum." That the city's regulations were not without their effect, appears both from Stow and other writers, the former of whom, indeed, attributes to this very circumstance, some of the habits of the apprentices. "Because the apprentices of London were often children of gentlemen and persons of good quality, they did affect to go in costly apparel, and wear weapons, and frequent schools of dancing, fencing, and music." But what more than anything else gave importance to the apprentices was the remarkable degree of union which subsisted among them, probably originating in the peculiar dress which was assigned to them, and the particular regulations which they were subject to, and which were carried to such an extent as, in the imperfect state of police then existing, must have made them even a dangerous body. In the preface to a curious poem entitled 'The Honour of London Apprentices,' published in 1617, the author thus quaintly describes what he calls the "unanimous correspondency that is among that innumerable company." "There is," he says, "a kind of supernatural sympathy, a general union, which knits their hearts in a bond of fraternal affection, under the common notion of London prentices, in so much that as I have taken notice many a time and often, if any either real or supposed wrong or violence be offered to any one, the rest (though not otherwise) knowing him to be a prentice, do immediately, and commonly without examination of the

quarrel, engage themselves in the rescue, affrighting the adversary with this terrible sentence, 'Knock him down, he wrongs a prentice.'" The watchword of 'Prentices and clubs' appears to have been always promptly responded to; and it may be supposed that such a body thus ready to assist one another, and confident in their numbers, would be extremely formidable in any civic tumult, more particularly as they had in London the advantage of the Liberties of the Tower and other places for rendezvous and retreat, into which the city forces were not allowed to pursue them. There are, in the memoirs and chronicles of the times, from the reign of Henry VI. to the revolution of 1688, frequent accounts of the disturbances and insurrections in which the apprentices took a principal part. But even prior to this time the apprentices of London appear to have distinguished themselves in a nobler field than a city insurrection. The author of the poem above mentioned celebrates the prowess of some of them in the holy wars, and the field of Crecy.

At a later period we have, in the tracts of the time, many curious particulars as to the manners and habits of the apprentices. In a tract published in 1625, and entitled 'The City's Advocate in this case of honour and arms, whether apprenticeship extinguisheth gentry,' the author gives the following account of an apprentice's ordinary services:—"He goes bare-headed, stands bare-headed, waits bare-headed before his master and mistress; and while as yet he is the youngest apprentice, he doth perhaps, for discipline sake, make old leather over night shine with blacking for the morning; brusheth a garment, runs of errands, keeps silence till he have leave to speak, follows his master, or ushereth his mistress, and sometimes my young mistresses their daughters, (among whom some one or other of them doth not rarely prove the apprentice's wife,) walks not far out but with permission, and now and then, as offences happen, he may chance to be terribly chidden or meraced, or what sometime must be worthily corrected." The same author gives the following account of the peculiar dress of the apprentices:—"The flat round cap, hair close cut, narrow falling band, coarse side-coat, close hose, cloth stockings, and the rest of that severe habit, was in antiquity not more for thrift and usefulness than for distinction and grace, and were originally arguments or tokens of vocation or calling." Of this dress, Stow, in his Survey of London, gives some further particulars. "In the time of Queen Mary, and beginning of Queen Elizabeth, as well as many years before, all apprentices wore blue cloaks in the summer, and blue gowns in the winter; their breeches and stockings were usually of white broad cloth, namely, round slops, and their stockings sewed up close thereto, as if they were all but one piece. They also wore flat caps, both then and many years after, whom the pages of the court in derision called flat-caps." He also states, that "when apprentices and journeymen attended upon their masters and mistresses at night, they went before them carrying a lantern and a candle in their hands, and a great long club on their necks; and many well-grown sturdy apprentices used to wear long daggers in the day time on their backs or sides." Of the importance attached to the dress of the apprentices, a remarkable proof is given in a proclamation issued on the 21st May, 1552, by the Lord Mayor, by direction of the Common Council, which contains a variety of curious enactments on the subject. But it should seem from the 'City's Advocate,' from which an extract has already been given, that it was not found easy to carry into effect these regulations, and in particular that the cap which had drawn down on the apprentices from the gay pages of the court the opprobrious appellation of "flat-caps," had fallen into disuse.

Many of the most formidable insurrections in which

the apprentices were engaged, were directed against foreign artificers and tradesmen; and it is not improbable that in these cases they may have had, if not the direct encouragement, at least the secret connivance of their masters. One of the earliest of these we have an account of in 'The Cronycle of England,' published in 1515. It occurred in 1454, in the reign of Henry VI., the Lombards settled in London being the objects of attack. Another very serious riot, which took place in the reign of Henry VIII., on the 1st May, 1517, and from which that day was named Evil May-day, is said, in the picturesque description given in Hall's Chronicle, to have been commenced by the apprentices. Many similar disturbances are recorded by Stow to have taken place in the reign of Queen Elizabeth, particularly "in the beginning of September, 1586, when they made a formidable insurrection amounting to little less than treason against the French and Dutch." Indeed, there are more instances than one in the state-trials, in which apprentices have been tried and executed for high treason. In the times of the civil war, the apprentices bore an active part, and in the restoration of Charles II. they seem to have taken a lead. Of the importance attached by themselves to their own influence, there is a curious proof in a letter written about the time of the Restoration, by the apprentices of Bristol to their brethren in London; and this letter is also remarkable, as showing that the same system which had been established in London, had extended into other parts of the country. There is still preserved in the British Museum, a manuscript summons for the apprentices of London to meet in Covent Garden, for the purpose of promoting one of the petitions which they had presented to parliament. Many petitions were indeed presented by them to parliament during the civil war, and Covent Garden appears to have been the usual place of assembling for such purpose. The following extracts from Pepys's Diary serve to show that, during the reign of Charles II., the apprentices continued to be a turbulent body, and they are proofs both of the close union subsisting among them, and of the idea which was generally entertained of their power. On the 26th March, 1664, he writes:—"Upon occasion of some 'prentices being put in the pillory for beating of their masters, or such like thing, in Cheapside, a company of 'prentices came and rescued them, and pulled down the pillory, and they being set up again, did the like again." And on the 24th March, 1668, he says:—"Thence back to Whitehall, where great talk of the tumult at the other end of the town, about Moorfields, among the 'prentices taking the liberty of these holidays to put down disorderly houses. And Lord! to see the apprehensions which this did give to all people at court, that presently order was given for all the soldiers, horse and foot, to be in arms; and forthwith alarms were beat, by drum and trumpet, through Westminster, and all to their colours, and to horse, as if the French were coming into the town."

The last time that the apprentices are recorded to have acted together as a body was in the Revolution of 1688, in which we learn from Burnet that they took some part. After this time their union appears to have been dissolved, but to what this was owing does not seem certain. Probably a better organized system of police, and measures taken to prevent such flagrant violations of the peace of the city, may have been among the most effective causes; to which may be added the silent operation of that gradual change of manners which by degrees softened down the distinctions, and merged in one general mass the different classes of society.

Half a century after the apprentices of London had ceased to act as a body, Hogarth produced his 'Industry and Idleness.' He looked round upon the

state of society then existing, and drew his pictures of life from the realities which met his observation. Had his object been to give an historical representation of the different courses of Prudence and Carelessness, he might have embodied a portion of the plot of the old drama of 'Eastward Hoe' without any material departure from its characters and incidents. He would have laid his scenes, as the scenes in that drama are laid, in the house of a respectable goldsmith of the times of Ben Jonson and Shakspeare. He would have exhibited the sober citizen calmly remonstrating with the giddy youth who had discarded his "flat cap," and was decorated, as the old stage directions have it, with his "hat, pumps, short-sword, and dagger." He would have made us imagine the old goldsmith (by name Touchstone) exclaiming, as in the play,—“Did I gain my wealth by ordinaries? no: by exchanging of gold? no: by keeping of gallants' company? no: I hired me a little shop,—fought low,—took small gain,—kept no debt-book,—garnished my shop, for want of plate, with good, wholesome, thrifty sentences, as, 'Touchstone, keep thy shop, and thy shop will keep thee;—light gains make heavy purses;—'tis good to be merry and wise.'” These old rules of prudence can never wear out; they are maxims from which the soundest philosophy might take its text. Hogarth would have painted the careful but generous merchant looking with a clouded though not forbidding brow upon his thoughtless apprentice, as he says,—"As for you, think of hucks, for thy course is running directly to the prodigal's hog-trough." But it was the business of Hogarth to paint life as he found it. The days were past when a London apprentice would despise his master, as in the old play, because "his father was a maltman and his mother sold gingerbread;" or would think it a fine thing to say "I am a gentleman and may swear by my pedigree." Apprentices to handicraft were, in Hogarth's time, as they are now, chiefly taken from the ranks of those who labour with their hands; and if they came to be placed above that necessity, the elevation was, in most cases, the result of their own industry and good conduct. The moral painter has exhibited to us, in his first plate, the fellow apprentices in a weaver's workshop. The one, whose open, modest, and intelligent countenance at once wins our regard, is carefully intent upon the duty of his occupation; the other, whose vulgar and unintellectual face is indicative of the habitual grossness of his character, is fast asleep. The porter-pot on the loom and the tobacco-pipe by his side show that his drowsiness proceeds from indulgence rather than from fatigue. He is equally indifferent to the noise of the cat who is playing with his shuttle, and to the angry step of his master, who is entering the door with a cane uplifted for his chastisement. The accessories of the scene are few and simple, but they assist the development of its characters. The industrious apprentice has fixed upon the wall some papers which may incite him to persevere in his course of diligence, such as the life of Whittington: the idler has stuck up a profane ballad of that day, called 'Moll Flanders.' The 'Prentice's Guide' of the one is carefully preserved; that of the other is torn and dirty. The artist, in this first plate of his series, has made the difference of the two characters that he intends to contrast in their conduct and their fortunes perfectly intelligible. He has strikingly availed himself of the general inclination to associate certain qualities of the mind with certain forms of countenance and modes of expression. Hogarth was a great physiognomist,—so much so that Lavater, who endeavoured to reduce physiognomy to a science, has chosen the face of the idle apprentice, in the fifth print of this series (which we shall give in our next Number), to illustrate a part of his system, in showing how profligate

gacy leaves its indelible traces on the features of its unhappy victims,—how men “erase Nature’s works” by habits of low indulgence.

The idle apprentice of the old play presumes upon his gentility, and thinks it gives him a title to despise industry, to dress in a manner unbefitting his station, to swagger in taverns and gaming-houses, to spend the night in drunken excitements. The idle apprentice of Hogarth exhibits the characteristic vices of a lower rank of society. He sinks at once into the degradation which the profligate with higher aims doubtless sinks to at last, but which he does not at first contemplate as the natural direction of his career. All sensual gratifications are gross and revolting; but the corruption is sometimes veiled over by the thin disguises which seem to the inexperienced as something akin to spirit and generosity. Such exhibitions of vice are like the dead apples of the East—bloom and freshness without, but unsatisfying ashes within. The prodigal coxcomb of ‘Eastward Hoe,’ says to his fellow apprentice—“do nothing; be like a gentleman, be idle; the curse of man is labour.” The grovelling set of Hogarth says pretty much the same in his heart:—“do nothing; be a happy vagabond, be idle; the curse of man is labour.” They are each wrecked upon the same quicksand of false opinions. The most pampered favourite of fortune, who dedicates himself to habitual self-indulgence, and believes that labour is a curse and a shame, ends, like Hogarth’s own rake, in misery and disgrace: the youth who having to live by the work of his hands, despises the means of maintenance and advancement which society offers him, soon turns to prey upon the fruits of the industry of others, and runs along the broad path to destruction with very rapid strides. Calamity may come in time to arrest the steps both of the luxurious prodigal and the grovelling vagabond; but if the warning comes in vain, the cup of misery is soon filled for both.

The two prints on the opposite page tell their own story; and they need little comment. In this series of prints, the artist has avoided the refined and ingenious elaborations of his main design, which distinguish most of his other great performances. This he did upon system. He himself says, “as the prints were intended more for use than ornament, they were done in a way that might bring them within the purchase of those whom they might most concern. Yet, notwithstanding the inaccuracy of the engraving, what was thought conclusive and necessary for the purpose for which they were intended, such as action and expression, &c., are as carefully attended to as the most delicate strokes of the graver would have given; sometimes more: for often expression, the first quality in pictures, suffers in this point, for fear the beauty of the stroke should be spoiled; while the rude and hasty touch, while the fancy is warm, gives a spirit not to be equalled by high finishing.” But although these prints are much simpler in their conception than those of the Marriage à la Mode, the Rake’s Progress, the Election, and others, the peculiar genius of Hogarth sufficiently exhibits itself in them. In the second plate the modest and ingenuous apprentice performing the office of devotion, and joining in the services of the church with a young woman, whose countenance is equally prepossessing (intended for his master’s daughter), at once claims the attention and sympathy of all who look on the picture. This is the main object of the painter. We see in the calm and contented face of the apprentice, the assurance of a happy life, whatever be his fortune. The wealth and the honours which he ultimately reaches are not necessary to make him respected. He does his duty in the station in which he is now placed; and the good wishes of good men already wait on him. This is the moral of the painter; but he surrounds his prin-

cipal characters, as Shakspeare always does, with the accidental realities of life. The man asleep in the same pew with the apprentice,—the corpulent woman, full of her own self-importance—the shrivelled pew-opener, humbly intent upon her devotional duties—these characters show the accuracy of Hogarth’s observation, and they assist rather than injure the main effect of the design.

Turn we to the revolting contrast,—the idle apprentice gambling upon a tomb. The images of death are about him—those images which teach man the worthlessness even of the higher aspirations of mere worldly wisdom—of the love of power or of riches—the worthlessness of everything but truth and virtue. Yet he is surrendered to the basest of excitements with the basest of companions. Look at that horrid face of vacancy and cunning—the blackguard with the patch over his eye. We shall see him again in the series—the associate in crime, and the betrayer of the unhappy apprentice. Wickedness is in companionship with filth and rags—not the result of poverty alone, but of depravity. The self-respect of the wretched apprentice is utterly destroyed. He is insensible to shame. He is far beyond the beadle’s stripes. His heart is utterly hardened.

The courses of evil into which the idle apprentice is precipitated are so gross and revolting, that it is possible many a young man may exclaim,—“What is all this to me? I shall never fall so low.” That may be true; but the only sure preventive of such a fearful degradation is to resist the beginnings of evil. Careful parents, diligent instructors, kind but prudent masters, may and do save the inexperienced from the temptations which surround them; but all these restraints are sometimes leaped over. This truth is quaintly but beautifully expressed by one of our old poets, George Herbert:—

“Lord, with what care hast thou begirt us round!

Parents first season us; then schoolmasters

Deliver us to laws; they send us bound

To rules of reason, holy messengers.

Pulpits and Sundays, sorrow dogging sin,

Afflictions sorted, anguish of all sizes,

Fine nets and stratagems to catch us in,

Bibles laid open, millions of surprises;

Blessings beforehand, ties of gratefulness,

The sound of glory ringing in our ears;

Without, our shame; within, our consciences;

Angels and grace, eternal hopes and fears.

Yet all these fences and their whole array,

One cunning bosom-sin blows quite away.”

The “bosom-sin” which besets most young men is a natural impatience of restraint. To the apprentice, and especially to the poor apprentice, this feeling is much too often present. The constant round of labour, and the few relaxations of his lot, often appear little better than slavery. The good of all this carefulness and restraint is distant; the youth’s desire for freedom is nigh at hand. We shall in this place insert a paper, which has been transmitted to us by an intelligent young man, who has raised himself by his talents and good conduct from a very humble lot in life, and who well describes his own feelings “before his seven long years were out:”—

“Six years ago died my friend Richard Browne, and having been led to review my early intercourse with him, I imagined there was one passage of it which would not be uninteresting to a considerable class of the readers of the ‘Penny Magazine’—those who are apprentices.

“When I first knew Richard Browne, we were both parish apprentices to different shoemakers; but there was this difference between us—that he was nearly out of his time, while I had only served just long enough to be master of my business. We were both quiet and studious young men for our situation in life. I was



"O how I love thy law; it is my meditation all the day."—*Psalms* cxix., 97.

[INDUSTRIOUS APPRENTICE AT CHURCH.]



"Judgments are prepared for scorers, and stripes for the back of fools."—*Proverbs*, x., 29.

[IDLE APPRENTICE GAMING.]

almost exclusively a reader of all kinds of books that I could get, or had time to read; but Richard was also a member of the local Mechanics' Institute, the lectures at which he attended with as much regularity as he could. On the evening of "Saint Monday" we were allowed to leave our work earlier than on other days, and regularly availed ourselves of the opportunity to meet by appointment, and, when the weather admitted, took a walk into the fields, or along the seashore, discussing the information we had obtained from books or lectures since the last meeting. I have since mingled, and do now mingle, with persons far more competent than poor Richard to give information; but I have never been able to realize the same degree of pleasure which my intercourse with him afforded, at the time when he was the only person I knew who could understand and sympathize in my tastes and habits of mind, and who could afford me information on subjects beyond the details of daily provision and daily business. I feel it impossible to express the sense I entertain of the value of such an acquaintance to any man, and particularly a very young man. He is gone.

"Among the circumstances in my own situation which the most annoyed me, was the want of personal freedom. At half-past six in the morning I was generally found at my work, and seldom left it earlier than nine in the evening, and, on Saturdays, was often kept until midnight. I knew that the non-appearance of the sun at the ascertained hour of its rising would scarcely occasion more remark and sensation in the world than my own absence from labour in the appointed hours would produce in my immediate circle. This displeased me. It displeased me when I looked forward, through a series of years that seemed interminable, and embracing the sunniest period of existence, to perceive that it must all be spent in the same monotonous routine of occupation, and that, in effect, I had no more control over my own movements or time than the horse which in the morning is taken from the stable to drag a cart, and in the evening is brought back again. I therefore looked forward, with the strongest anticipations of perfect and undisturbed enjoyment, to the period when my apprenticeship would expire—when I should be my own master, should act without immediate control, and might go where I pleased.

"Richard smiled; for I had been expressing myself much in this manner to him during one of those evening walks of which I have spoken. I never knew a man whose smiles conveyed so much meaning as those of Richard Browne. I at once understood him, on the present occasion, to dissent from me, and said, somewhat warmly, 'I wonder very much, Richard, that you do not feel our case to be a hard one!' My friend replied, 'I do really think that the condition of an apprentice in this country is, in many respects, a very hard one; and chiefly on account of his being "bound" for a time so much longer than is necessary to learn the business he has in view. This is particularly hard upon us parish apprentices, who are often bound before fourteen years of age, and have, therefore, more than seven years to serve. I have been told that there is no country in which the time of apprenticeship is so long as with us. In Scotland it differs in different corporations, but is usually three years, even in very nice trades. In France it also differs in the various corporations and trades: in Paris it is usually five years; but in many trades a man is not qualified to be a master until he has served five years more as a journeyman. Nevertheless—'

"Ah, nevertheless!—Now, I dare say, after your usual manner, you will be for making out that there is something good in this long term of apprenticeship among ourselves.'

"Well, John, do not despise my talent of finding the mixture of good in the evil things of the world. Depend upon it, that there are no evil things so entirely evil, nor perhaps good things so entirely good, as we are generally apt to imagine. The good I find in the long term of apprenticeship is, that the master is so well recompensed by it for teaching a trade, that he takes a much smaller premium than he would otherwise require; and in consequence of this, very respectable trades are much more open to poor boys than they would be if the time for which they are bound were shorter. I heard Mr. Jackson say a few evenings ago, that in most parts of the Continent common trades were occupied by men whose connexions would in this country be considered such as to entitle them to take higher ground for their walk in life. He did not give any reason for this; but I dare say it is owing to the large premiums which are demanded on account of the short apprenticeships.'

"This seems clear enough, and I wonder it never struck me before. But still it has not much to do with my particular complaint, that I have, for many years to come, to drive the awl and hammer leather without relaxation or pause; like a machine, always at work, always fixed in the same place, and without the power of calling this right hand my own.'

"Well, John, I very well understand you. At your age I felt much the same as you do now; and though I did laugh when you began to tell me of your feelings and expectations of freedom and enjoyment when your indentures expire, believe me, I did not laugh at you, but what I recollected of myself. I am now nearly out of my time, and when I look back I find that my seven years have passed more quickly and have not been so tiresome as I expected. It may seem dull in calculation to sit so continually in the same place, doing nearly always the same things. But, in fact, most trades contain such various work as to afford the changes necessary to prevent weariness. Now, in ours, dull though it seems, there is hammering, and sewing, and paring, and polishing, and then, at last, the pleasure one feels in the completed work. All this, and many other little things, relieve the attention very much; and I can say that, though as much a parish prentice as yourself, I have had no great cause to consider myself unhappy.'

"Perhaps not; but how much happier you will be when your time is out, and you may go where you please, and do what you please!

"I am sure it will be more comfortable in many respects; especially as one feels directly and fully paid for what he earns. But, otherwise, I expect no such mighty things from the change, as you do. Go where I please, and do what I please, indeed! What does that mean, but that I may, if I please, become a vagabond and fool; which, while I am an apprentice, my master will not allow? But if I please to be a respectable man, honestly discharging my duties to those around me, and to those who may depend upon me, where I must please to go is my workshop, and what I must please to do is my work. This, it is true, is a life of toil which I see before me; but it is honourable toil; and I doubt not that I shall find it sweetened by many circumstances of,

"Benevolence, and peace, and mutual aid," gathering around me, if cultivated.'

"It seems, John, that I have been led to take a wider view of this matter than you do. I feel that I am a member of a civilized community; and as such, have many rights, comforts, and privileges which I should not otherwise possess. I have also many wants. I must have bread from corn that I do not raise; meat that I do not kill; clothes that I cannot make; tea from China and sugar from the West Indies. In exchange for these benefits, I see that society requires me

to give up the savage right of being idle, and of going about where I please. I think this bargain which society makes with me so reasonable and fair, that I am very far from having a right to complain. You know what our favourite Cowper says about this:—

'Blest he, though undistinguish'd from the crowd
By wealth or dignity, who dwells secure,
Where man, by nature fierce, has laid aside
His fierceness, having learnt, though slow to learn,
The manners and the arts of civil life.
His wants, indeed, are many; but supply
Is obvious, placed within the easy reach
Of temperate wishes and industrious hands.'—*Task*, b. i.

If we do not like this compact into which society expects us to enter, I see not what remains for us in this country but the life of a Gipsy, or something like it. Do you think such a life more desirable than one of honest industry and domestic comfort? I don't. I say again with Cowper:—

'Strange! that a creature rational, and cast
In human mould, should brutalize by choice
His nature; and though capable of arts,
By which the world might profit, and himself,
Self-banish'd from society, prefer
Such squalid sloth to honourable toil.'—*Task*, b. i.²⁰

"Such was the substance of this conversation with my excellent friend. On consideration, I thought that his observations were very just where they touched; and I send them to you in the hope that they may be as useful to others as they were to me. I had many real evils to endure, as I then thought and as I still think,—but I gradually learnt that the very effort to endure begat content."

In the play of 'Eastward Hoe,' the old goldsmith discards his prodigal apprentice, and takes into his confidence and affection the diligent and virtuous servant. Hogarth has followed this course of the story. In the fourth plate of the series, the industrious apprentice is exhibited as the familiar friend of his master—intrusted with his most important affairs—placed in authority over his workmen—raised, in fact, to that position of trust which marks a kindly and honourable intercourse between the employer and the employed, whose interests are one and the same. We give this cut in the last page.

We gave in our first paper on Hogarth some striking passages of criticism from the pen of Mr. Lamb. We may conclude this Number with some general remarks by Horace Walpole, who, commonly a severe fault-finder, understood and appreciated the genius of our great moral painter.

"Having dispatched the herd of our painters in oil, I reserved to a class by himself that great and original genius, Hogarth; considering him rather as a writer of comedy with a pencil than a painter. If catching the manners and follies of an age 'living as they rise,'—if general satire on vices and ridicules, familiarised by strokes of nature and heightened by wit, and the whole animated by proper and just expressions of the passions, be comedy, Hogarth composed comedy as much as Molière: in his 'Marriage à-la-Mode' there is even an intrigue carried on throughout the piece. He is more true to character than Congreve; each personage is distinct from the rest, acts in his sphere, and cannot be confounded with any other of the *dramatis personæ*. The alderman's footboy, in the last print of the set I have mentioned, is an ignorant rustic; and if wit is struck out from the characters in which it is not expected, it is from their acting conformably with their situation, and from the mode of their passions, not from their having the wit of fine gentlemen. Thus there is wit in the figure of the alderman, who, when his

daughter is expiring in the agonies of poison, wears a face of solicitude, but it is to save her gold ring, which he is drawing gently from her finger. The thought is parallel to Molière's, where the miser puts out one of the candles as he is talking. Molière, inimitable as he has proved, brought a rude theatre to perfection. Hogarth had no model to follow and improve upon: he created his art, and used colours instead of language. His place is between the Italians, whom we may consider as epic poets and tragedians, and the Flemish painters, who are as writers of farce and editors of burlesque nature. They are the Tom Browns of the mob. Hogarth resembles Butler, but his subjects are more universal; and, amidst all his pleasantry, he observes the true end of comedy,—reformation: there is always a moral to his pictures. Sometimes he rose to tragedy, not in the catastrophe of kings and heroes, but in marking how vice conducts, insensibly and incidentally, to misery and shame. He warns against encouraging cruelty and idleness in young minds, and discerns how the different vices of the great and the vulgar lead by various paths to the same unhappiness.

"It is to Hogarth's honour that in so many scenes of satire or ridicule, it is obvious that ill-nature did not guide his pencil. His end is always reformation, and his reproofs general. Except in the print of the 'Times,' and the two portraits of Mr. Wilkes and Mr. Churchill, that followed, no man, amidst such a profusion of characteristic faces, ever pretended to discover or charge him with the caricature of a real person; except a few notorious characters who are acting officially and suitably to their professions. As he must have observed so carefully the operation of the passions on the countenance, it is even wonderful that he never, though without intention, delivered the very features of any identical person. It is at the same time a proof of his intimate intuition into nature. It is another proof that he drew all his stores from nature, and the force of his own genius, and was indebted neither to models nor books for his style, thoughts, or hints; and that he never succeeded when he designed for the works of other men. He could not bend his talents to think after any body else. He could think like a great genius, rather than after one. I have a sketch in oil that he gave me, which he intended to engrave; it was done at the time that the House of Commons appointed a committee to inquire into the cruelties exercised on prisoners in the Fleet, to extort money from them. The scene in the committee; on the table are the instruments of torture. A prisoner in rags, half-starved, appears before them; the poor man has a good countenance, that adds to the interest. On the other hand is the inhuman gaoler. It is the very figure that Salvator Rosa would have drawn for Iago in the moment of detection. Villany, fear, and conscience are mixed in yellow and livid on his countenance; his lips are contracted by tremor, his face advances as eager to lie, his legs step back as thinking to make his escape; one hand is thrust precipitately into his bosom, the fingers of the other are catching uncertainly at his button-holes. If this was a portrait, it is the most speaking that ever was drawn; if it was not, it is still finer.

"It is seldom that his figures do not express the character he intended to give them. When they wanted an illustration that colours could not bestow, collateral circumstances, full of wit, supply notes. The nobleman in 'Marriage à-la-Mode' has a great air; the coronet on his crutches, and his pedigree issuing out of the bowels of William the Conqueror, add to his character. In the Breakfast, the old steward reflects for the spectator. Sometimes a short label is an epigram, and is never introduced without improving the subject. Unfortunately, some circumstances that were temporary, will be lost to posterity, the fate of all comic authors; and

if ever an author wanted a commentary, that none of his beauties might be lost, it is Hogarth—not from being obscure (for he never was that but in two or three of his first prints, where transient national follies, as lotteries, free-masonry, and the South-sea, were his topics), but for the use of foreigners, and from a multiplicity of little incidents, not essential to, but always heightening, the principal action. Such is the spider's web extended over the poor's box in a parish church; the blunders in architecture in the nobleman's seat seen through the window, in the first print of 'Marriage-à-la-mode'; and a thousand in the 'Strollers dressing in a Barn.' The 'Scenes of Bedlam' and the 'Gaming-house' are inimitable representations of our serious follies or unavoidable woes; and the concern shown by the Lord Mayor, when the companion of his childhood is brought before him as a criminal, is a touching picture, and big with humane admonition and reflection.

"It may appear singular, that of an author whom I call comic, and who is so celebrated for his humour, I should speak in general in so serious a style; but it would be suppressing the merits of his heart to consider him only as a promoter of laughter. I think I have shown that his views were more generous and extensive. Mirth coloured his pictures, but benevolence designed them. He smiled like Socrates, that men might not be offended at his lectures, and might learn to laugh at their own follies. When his topics were harmless, all his touches were marked with pleasantry and fun. He never laughed, like Rabelais, at nonsense

that he imposed for wit; but, like Swift, combined incidents that divert one from their unexpected encounter, and illustrate the tale he means to tell. The manners or costume are more than observed in every one of his works. The very furniture of his rooms describe the characters of the persons to whom they belong,—a lesson that might be of use to comic authors. It was reserved to Hogarth to write a scene of furniture. The rake's levee-room, the nobleman's dining-room, the apartments of the husband and wife in 'Marriage-à-la-mode,' the alderman's parlour, the poet's bed-chamber, and many other, are the history of the manners of the age."

In the next Supplement we shall give the completion of the series of 'Industry and Idleness,' as far as we purpose to engrave these prints. There were originally twelve; we shall omit four. The progress of the story will not be interrupted by these omissions, for the main design will be sufficiently made out without this portion of the series. The prints which we shall publish in the next Number are the following:—

'The Idle Apprentice sent to Sea.'

'The Industrious Apprentice married to his Master's Daughter.'

'The Idle Apprentice betrayed by a Profligate Associate, and apprehended for Murder.'

'The Idle Apprentice committed for Trial by the Industrious Apprentice, who has become a Magistrate of London.'



"Well done, thou good and faithful servant; thou hast been faithful over a few things; I will make thee ruler over many things."—Matthew, xxv. 21.

[THE INDUSTRIOUS APPRENTICE IN THE CONFIDENCE OF HIS MASTER.]

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THE LOTUS.



[The Egyptian Lotus.]

THERE have perhaps been few botanic names so variously applied as that of *lotus*; nor are there many plants of which so much has been written. The Greeks and Romans seem to have mentioned so many different plants by the name, that it is not always easy to make out which of the number they are on any particular occasion describing. The name comes to us in Greek characters, and hence some persons have taken the trouble to try to find a meaning for it in that language, without considering that Herodotus, who himself calls it a species of lily, say that *lotos* is the Egyptian name (ii. chap. 92). When Herodotus speaks of the *tree* lotus, he calls it the Cyrenæan Lotus (ii. 96). With regard to its extended application, the truth seems to be that at various times, and in various languages and nations, it has been applied to some plant of eminent use to man. The first mention of the name is by Homer, who speaks of a mild, hospitable race of men whom he calls *Lolophagi* (lotus-eaters), because they entirely subsisted on the berry of the lotus, which had the power of making strangers who ate it forget their native country and distant friends. This plant is now generally considered to be the *rhamnus lotus* of Linnæus, which is a thorny shrub growing on the northern coast of Africa, and elsewhere on that continent, and producing a farinaceous berry about the size of an olive; which, being pounded in a wooden vessel and afterwards dried in the sun, is made into sweet cakes, in colour and flavour resembling gingerbread. The natives of

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the countries through which Mungo Park travelled esteem it highly, and in some places they prepare from it a sweet beverage.

The name of *lotus* has also been given to the *cyamus*, or sacred bean of India. In the ancient Hindoo system this aquatic plant was the attribute of Ganga, the goddess of the Ganges; and, more generally, was an emblem of the great re-productive powers of the world, on which account it was held in religious veneration. The following account of the matter from the 'Sheeve Purana,' one of the sacred books of the Hindoos, may amuse our readers, though it may not afford them much edification. Bramah, one of the chief deities, is made to give this account of his origin. When Vishnu was about to create the world, he produced a lotus several thousand miles long, from the unfolded flower of which proceeded Bramah. He reflected, with much amazement, who he was and whence he came, and at last concluded that the lotus-flower was his author. He therefore travelled downward a hundred years in hope to reach the root; but, seeing no end of his journey, he turned about, and travelled upward another century without reaching the end of this immense plant. At last Vishnu was seen, and, a quarrel ensuing, the two gods were going to fight, when Siva appeared and prevented the combat. Vishnu then, in the shape of a boar, travelled down the lotus a thousand years till he came to Patal; and Bramah wandered upwards, in the form of a goose, until he

2 F

came to the world above. This fable not only accounts for the origin of the veneration paid to the lotus in India, but affords a fair average specimen of the Hindoo mythological system. Some writers have thought that Pythagoras, who is said to have travelled in India, referred to this plant when he commanded his followers to abstain from beans; and that, as the *cyamus* did not grow in Greece, he adopted the common bean as its representative.

The Egyptian lotus is mentioned in the following terms by the ancient Greek writers, Herodotus and Theophrastus. The former says—"The Egyptians, who live in the marshy grounds, make use of the following expedient to procure themselves more easily the means of subsistence. When the waters have risen to their extreme height, and all their fields are overflowed, there appears above the surface an immense quantity of plants of the lily species, which the Egyptians call the *Lotos*, and which they cut down and dry in the sun. The seed of the flower, which resembles that of the poppy, they bake, and make into a kind of bread; they also eat the root of this plant, which is round, of an agreeable flavour, and about the size of an apple." The same plant is thus described by Theophrastus:—"The lotus of Egypt grows in the inundated fields. Its flowers are white, and their petals are like those of the lily. They grow close to one another in great numbers. The flowers close at the setting of the sun, and sink below the water; but, when the sun rises, they again open and re-appear. This they do daily until the fruit is completely formed and the flower has fallen. The fruit is equal to that of a large poppy, and contains a large number of grains resembling those of millet." It is singular that neither of these ancient authors ascribe a sacred character to the plant, but we learn from later sources that it denoted fertility in Egypt as in India, being consecrated to Isis and Osiris as an emblem of the creation of the world from water; and that it was also considered emblematic of the rising of the Nile and the return of the sun. This account is confirmed by the frequency of its occurrence in the bas-reliefs and paintings in the Egyptian temples, in all representations of sacrifices, religious ceremonies, &c., and in tombs, and whatever is connected with death and another life. One class of writers, in their anxiety to show that the religion and arts of Egypt were derived from India, were formerly disposed to contend that the true lotus described by Herodotus and Theophrastus was the Indian *cyamus*, which had been introduced into Egypt, together with the superstitions connected with it, but had since become quite extinct in that country; and this position they confirmed, by asserting that the lotus represented in the Egyptian sculptures was not the Egyptian *nymphaea*, but the Indian *cyamus*. But it will be perceived that these old Greek writers refer to the plant which they describe as one which is common; and M. Delille states in the great work, the 'Description de l'Egypte,' that the Egyptian lotus agrees as nearly as could be expected with the description of Herodotus and Theophrastus; and that the *Nymphaea caerulea*, or blue lotus of Egypt, is that which is more frequently than any other plant sculptured and painted in the Egyptian temples.

Our wood-cut represents the Egyptian lotus (*Nymphaea lotus*), and the blue lotus (*Nymphaea caerulea*), grouped from the work we have just mentioned, from which we also obtain the following description of the white species, from which the other is chiefly distinguished by the blue colour of its flower. "It grows in the ditches and canals of Lower Egypt, and varies in size according to the depth of the water. The root is nearly a globular tubercle, about fifteen lines thick, (more than an inch and a quarter,) and covered with a dry, brown, and leathery skin. The

leaf-stalks are cylindrical, about as large as the little finger, and garnished with five prickles: the length is proportionable to the depth of the water; short in rice-fields, and low, marshy places, but sometimes five feet long in the lakes and canals. The leaf, which approaches to a circular shape, with short semi-lunar indentations around the circumference, varies from six inches to a foot in breadth. The calyx consists of four oval leaves; green below, but ruddy at the edges. The blossom consists of from sixteen to twenty petals, which only differ from the leaves of the calyx in being of a white colour, and a little longer in shape. The centre of the flower is occupied by a half-globular ovary, to which adhere the leaves of the calyx, and the petals disposed in general ranks. The stamens, which are more numerous than the petals, are inserted in the same manner around the ovary; they are straight and half as long as the petals, those nearest to the petals being the largest. The ovary is crowned by a flat stigma, divided into twenty or thirty rays. The fruit is round, hollow, soft, and pulpy, and covered with scales, which are the remains of the different parts of the flower. The divisions of this capsule correspond in number with the rays of the stigma, and form so many cells, each of which contains a large number of small, round, and mealy seeds."

At the present day, the Egyptians make little use of either the white or blue species of the lotus. They esteem the latter most beautiful flower, which the ancient Egyptians used to make into crowns. The local name for both is *naufar*; and the white is distinguished as the "*naufar of the hogs*," and the blue as the "*naufar of the Arabs*."

We cannot better conclude this article than by the following beautiful passage from Southey's 'Curse of Kehama,' descriptive of a lake adorned by the lotus:—

"Fed by perpetual springs, a small lagoon,
Pellucid, deep, and still, in silence join'd
And swell'd the passing stream. Like burnish'd steel,
Glowing, it lay beneath the eye of noon;
And when the breezes, in their play,
Ruffled the darkening surface, then, with gleam
Of sudden light, around the lotus stem
It rippled, and the sacred flowers that crown
The lakelet with their roscate beauty, ride,
In gentlest waving rock'd from side to side;
And as the wind upheaves
Their broad and buoyant weight, the glossy leaves
Flap on the twinkling waters up and down."

STATISTICS OF PARIS.

Two of the Appendices (Nos. 75 and 76) of the recently published 'Report on the Commercial Relations between France and Great Britain,' contain some very interesting information concerning the annual expenditure of the city of Paris, framed according to information which relates chiefly to the year 1826. We have reduced the francs to sterling money for the convenience of our readers; and, to render the article more complete, we have, from other sources, but equally drawn from official documents, prefixed the statistics of population and some other details, all of which refer to the same year, the estimated expenditure of which will be then given from the Report. We have occasionally stated the grounds on which the particular estimates are formed; and may generally mention that, from the great attention which has been given to statistics at Paris, the returns from thence claim the utmost reliance. It is our earnest hope that the sense which begins to be entertained in this country of the importance and value of statistical facts will ere long produce similar information of equal accuracy concerning our own metropolis and the country at large; and that we shall not much longer be obliged to content

ourselves with uncertain guesses and possible approximations.

The City.—Twenty-eight highways (routes royales) conduct to the capital, in which there are 1098 streets; 33 cross-ways; 134 passages; 27 alleys; 119 alleys, not thoroughfares; 22 courts; 7 closes; 10 piazzas (cloîtres); 22 houlvelards; 75 squares; 47 markets; 60 barriers; 49 quays; 8 wharfs; and 26,862 houses.

Population.—The last census, previously to 1826, was in 1817. According to the calculation of the births and deaths between that period and 1826, the capital, in the latter year, contained 890,905 inhabitants*, being 176,939 more than when the census was taken. These numbers include 474 inmates of the hospitals, who belong to the suburbs or departments; but it applies solely to the inhabitants properly so called, independently of strangers, not domiciliated, and troops, which are continually varying. The number of births in Paris, in 1826, was 29,970; marriages, 7755; deaths, 25,341. Of the 29,970 children born, 10,502 were illegitimate; of whom 3366 were acknowledged by their fathers. Of the 25,341 deaths, 15,647 persons died at their own houses; 8669 in the hospitals; 643 in the military hospitals; 50 in the prisons; and the number of bodies deposited in the course of the year at the Morgue†, was 332. The number of accidental and violent deaths was 859, (636 male and 223 female,) including 357 suicides, 8 murdered, 2 executed. The number of suicides, attempted and accomplished, was 511, composed of 333 men and 178 women. The number of deaths by the small-pox was 240; and the number of children gratuitously vaccinated was 3047.

Occupations.—Of the 890,905 inhabitants of Paris, in 1826, 430 were high functionaries; 450 members of the judicial department; 1140 members of the Institute and of the University; 18,460 clerks; 47,000 students and scholars; 366,000 persons living on their income, or engaged in manufactures or trades; 348,000 workmen or labourers; 90,000 servants; 77,220 paupers; 13,700 sick, infirm, and aged, in the hospitals; 19,858 foundlings; nearly 300 persons belonging to the police; 400 advocates; 114 notaries; 150 attorneys; 200 bailiffs; 150 lottery-clerks; 300 actors and actresses; 200 dancers, singers, &c.; 310 musicians; 1200 dancing-masters, music-masters, &c.; 1000 physicians, surgeons, and apothecaries; 500 painters and sculptors; 600 printers and engravers; 1237 priests and nuns; 47,000 widows; 74 bankers; 1671 clerks, &c., of the Post-office; 500 commercial agents, &c.; 36,000 shopkeepers; 12,000 door porters; 500 drivers of diligences and mail-coaches; and 4000 prisoners.

Expenditure.—Now proceeding to the Report, we find the expenditure of this great body of people stated as follows:—The taxes and other general expenses, common to all the inhabitants, amounts to 4,714,651*l.*; or 5*l.* 7*s.* 8*d.* for each person. The items which constitute this large sum are not mentioned in the Report, but in 'Galignani's New Paris Guide' the following statement is supplied with a reference to the same year, and from manifestly the same official sources which the compilers of the Report employed. Registers, domains, stamps, and mortgages, 977,073*l.*; indirect taxes, 981,206*l.*; direct taxes, 941,249*l.*; postage, 231,154*l.*; lotteries, 328,027*l.*; customs, (salt not included,) 17,786*l.*; authorized gaming-houses, 435,416*l.*; proceedings in criminal cases, 9895*l.*; escorte (?) 3246*l.*; verification of weights and measures, 10,913*l.*; seal duty, 7914*l.*; interest of securities, 31,666*l.*; drawback on salaries, 117,071*l.*; substitutes for recruits, 8629*l.*; patents 9430*l.*; funeral ceremonies and chairs in

churches, 39,583*l.*; interments, 39,583*l.*; university expenses, 31,666*l.*; one-tenth of the expense of the Royal Printing-office, 9895*l.*; profit of the Bank of France, 288,958*l.*; seizures at the barriers, 3166*l.*; city budget, 197,916*l.*; total, under the head of taxes, &c., as given above, 4,714,651*l.*

We now return to the Report, and derive from it all our subsequent information on the subject of expenditure. *Rent*, 3,166,666*l.*; or 72*s.* for each inhabitant. *Annual maintenance and repairs of houses*, 791,666*l.*; or 18*s.* for each person. *Food*, 12,221,150*l.*; or 13*l.* 19*s.* for each. The several items of expense under this principal and interesting head are enumerated in the Appendix, No. 76, from which we are glad to obtain the ensuing details. *Corn*. The expenditure on food made from corn amounts to 19 per cent. of the whole expenditure on food; and consists of bread, 2,091,476*l.*, or 46*s.* 5*d.* for each person; flour, various uses, pastry, &c., 144,666*l.*, or 3*s.* 4*d.* for each; macaroni, secula, grits, &c., 72,833*l.*, or 1*s.* 8*d.* for each. *Meat of all kinds*, 22 per cent. of the whole, being 2,712,567*l.*, or 62*s.* for each person. *Poultry and Game*, 3 per cent. of the whole; being 363,635*l.*, or 8*s.* 4*d.* for each inhabitant. *Fish*, also 3 per cent. of the whole; being, for river or fresh-water fish, 24,342*l.*, or 6*d.* for each person. *Oysters*, and other shell-fish, 36,535*l.*, or 10*d.* for each; fresh sea fish, 176,284*l.*, or 4*s.* for each; salted sea fish, estimated at half the fresh sea fish, 88,142*l.*, or 2*s.* for each. *Eggs*, and the various forms of *Milk*:—7 per cent. of the whole expense for food, thus distributed; fresh and melted butter, 378,535*l.*, or 8*s.* 8*d.* for each inhabitant; eggs, 189,049*l.*, or 4*s.* 3*d.* for each person; milk, whey, cream, and new cheese, 339,071*l.*, or 7*s.* 9*d.* for each person. *Vegetables and Fruit*, fresh and dried, estimated at one-fifth of the meat, 542,512*l.*, or 12*s.* 5*d.* for each inhabitant, being 5 per cent. of the whole expenditure for food. *Various Articles*, together amounting to 2 per cent. of the whole expense, thus:—Salt, 71,922*l.*, or 1*s.* 7*d.* for each inhabitant; dry cheese, 68,280*l.*, or 1*s.* 6*d.* for each; olive oil, 71,250*l.*, or 1*s.* 7*d.* for each; vinegar, 59,375*l.*, or 1*s.* 4*d.* for each. *Liquors*:—these form 27 per cent. of the whole expenditure for food, and are thus described:—brandy and cordials, 435,416*l.*, or 9*s.* 10*d.* for each inhabitant; wine, 2,704,611*l.*, or 61*s.* 6*d.* for each; cider and perry, 10,885*l.*, or 3*d.* for each; beer, barley, and hops, 201,875*l.*, or 4*s.* 10*d.* for each inhabitant. *Colonial Produce*:—the expenditure on this class of articles amounts to 11 per cent. of the whole. The following are the details:—Sugar, and its various applications, 865,885*l.*, or 19*s.* 9*d.* for each inhabitant. Coffee, 346,353*l.*, or 7*s.* 11*d.* for each; tea and cocoa, estimated at one-tenth of the coffee, 84,635*l.*, or 9*d.* for each; spices, honey, &c., estimated at one-tenth of the sugar, 86,588*l.*, or 2*s.* for each person. *Water*, one per cent. of the whole; being 164,192*l.*, or 3*s.* 9*d.* for each inhabitant. The total of these various sums expended on articles of food is as before given from Appendix No. 75, to which we now return.

The expenditure on *Clothing* is estimated at one-fifth of that on food, and amounts to 2,444,230*l.*, or 55*s.* 4*d.* for each inhabitant. *Fuel*, 1,674,375*l.*, or 38*s.* 8*d.* each. *Lighting*, calculated according to the entries of oil, tallow, wax, candles, and the cost of 9000 tubes of gas at 62*s.* each, 689,580*l.*, or 15*s.* 8*d.* for one person. *Washing*, 1,246,875*l.*, being 28*s.* 6*d.* for each person. *Furniture*, renewals and repairs, estimating the annual expenses at one-fifth of the value of the furniture, 2,355,900*l.*, or 53*s.* 10*d.* for each inhabitant. *Servants and Salaries*:—this item estimates that there are 40,000 male and 50,000 female servants of all kinds; 4000 male and 6000 female assistants, scrubbers, sick nurses, &c.; and 15,000 sempstresses: total 115,000, at

* At a later period, in 1829, the population of Paris was estimated at 1,013,000.

† A place where persons found dead are deposited to be owned by their friends.

13l. 19s. average yearly wages or salary, making altogether 1,598,227l., or 36s. 5d. for each inhabitant. *Horses*:—this head of expense includes the following items:—food, 827,291l.; renewal and purchase of 4500 horses, at 23l. 15s. each, 106,875l.; shoeing and medicine for 21,000 horses, at 72s. 8d. each, 77,347l.; total of annual expenditure on horses, 1,010,641l., or 23s. 3d. for each inhabitant. *Carriages and Harness*, maintenance and renewal:—this head of expense is distributed thus:—6000 carts and drays, at 5l. 18s. 9d. each, 35,625l.; 2500 private carriages, at 19l. 15s. 10d. each, 44,531l.; 5000 cabriolets, &c., at 7l. 8s. 4d. each, 39,583l.; total expenditure on carriages, &c., 119,739l., or 2s. 6d. for one inhabitant. *Cost of Conveyance within Paris*: estimated, by the gains of 1100 hackney coaches, at 9s. 6d. a day, 190,712l.; the gains of 1000 cabriolets, at 7s. 1½d. a day, 130,031l.; and the gains of 400 glass coaches, at 197l. 18s. 4d. a year, 79,167l.; total cost of interior conveyance, 399,910l., or 9s. 1½d. for each inhabitant. *Tobacco and Snuff*, 225,623l., or 5s. 1½d. for each person. *Baths*, estimated at two river baths and two warm baths per inhabitant, 110,849l., or 2s. 8½d. for each person. *Charities in general*, estimated by the expenses of hospitals and asylums, 395,533l., or 9s. for each inhabitant. *Presentments*, calculated at 4s. per family, average for 30,000 families, 59,375l., or 1s. 6d. for each inhabitant. *Theatres and Exhibitions*, estimated according to the tax levied upon the produce for the benefit of the poor, 245,417l., or 5s. 7½d. for each inhabitant. *Lyings-in Charges*. The births being reckoned at 29,000 yearly, the lyings-in are thus classified:—6500 are at hospitals, or by assistance rendered at residences; the expenses of the remainder are thus estimated:—7500 at about 12s. each, 4,453l.; 10,000 at 31s. 8d. each, 15,832l.; and 5000 at 57s. each, 14,250l.; total expenditure on lyings-in, 34,536l.; or 9½d. to each inhabitant. *Nursings*. Of the 29,000 children born in the year, it is estimated that 5000 are nursed at the charge of the asylums; 9000 at a cost of about 80s., and 12,000 at 7l. 18s. 4d.; which, leaving out of account 3000 children successively dead, makes a total of 130,264l. on this head of charge; or 2s. 11d. for each inhabitant. *Medical Aid*. It is estimated that 74,000 persons, or one-twelfth of the population, are sick at the expense of 2½d. a day for drugs and medicines, making 267,180l. in the year, with a further sum of 133,590l., estimated at one-half of the price of the medicines, paid in fees to physicians and surgeons: total expenses for medical assistance, 400,782l., or 9s. for each inhabitant. *News-papers, &c.*, cost of subscription:—30,000 subscribers to the daily papers, at 55s. 5d. each, 83,125l.; subscriptions to reading-rooms, and to domestic and foreign periodicals, 35,625l.; total 118,750l., or 2s. 8½d. for each inhabitant. Thus the total amount of the annual expenditure of the city of Paris, on the objects of expense which have been enumerated, in the year to which the statement refers, was 35,388,774l.; which gives 40l. 8s. as the average annual expenditure of each inhabitant.

Patronage.—The Sciences, after a thousand indignities, retired from the palace of Patronage, and having long wandered over the world in grief and distress, were led at last to the cottage of Independence, the daughter of Fortitude, where they were taught by Prudence and Parsimony to support themselves in dignity and quiet.—*Rambler, No. XCI.*

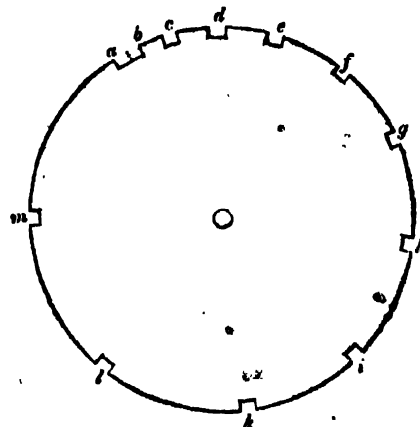
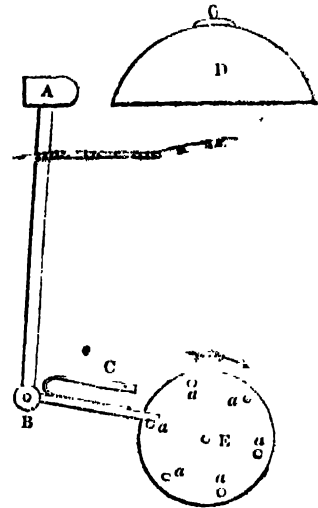
To solicit Patronage is, at least in the event, to set virtue to sale. None can be pleased without praise, and few can be praised without falsehood; few can be assiduous without servility, and none can be servile without corruption.—*Rambler, No. CIV.*

Chance is but a mere name, and really nothing in itself; a conception of our minds, and only a compendious way of

speaking, whereby we would express, that such effects as are commonly attributed to *chance*, were verily produced by their true and proper causes, but without their design to produce them.—*Bentley.*

STRIKING MACHINERY OF CLOCKS.

THAT part of the mechanism of a clock which causes the hands to move round on the dial is slow but constant in its action, while that by which the striking is effected operates only at intervals, and then with a comparatively rapid motion. The moving powers of these parts must, therefore, be quite distinct from each other, though, at the moment of striking the hour, they have a temporary connexion. A weight or spring, with a cord wound round a barrel, is in this, as in the other part, the first mover: by a wheel with teeth fixed to this barrel, a whole train of wheels is set in motion, each wheel revolving more rapidly as it is more distant from the first mover. The last wheel,—which runs round perhaps fifty or sixty times in a second,—is prevented from too rapid a motion by a broad thin piece of brass fixed to it, called a fly or fan, which catches the air in its revolutions. Upon one of the wheels E, nearest the barrel, a number of pegs or pins (a) are fixed, which, when the wheel revolves, raise the tail of the hammer A B, and draw the hammer back from the bell D. As the wheel E (which is called the pin-wheel) continues to turn, the pin passes the hammer-tail, which is forced down again by the spring C, and in consequence the hammer returns and strikes the bell. In the figure, the wheel has six pins, and while it revolves once, the clock strikes six times. Thus far the clock is capable of striking; but, when wound up, it will continue to strike perhaps three or four hundred strokes until the weight comes to the ground. The question is now to make it strike but once an hour, and then offly the number of strokes required. This is generally effected in foreign clocks, and sometimes in English ones, by a piece of mechanism called a striking-plate, which is a circle divided into unequal portions by notches on its circumference, as in the annexed figure.

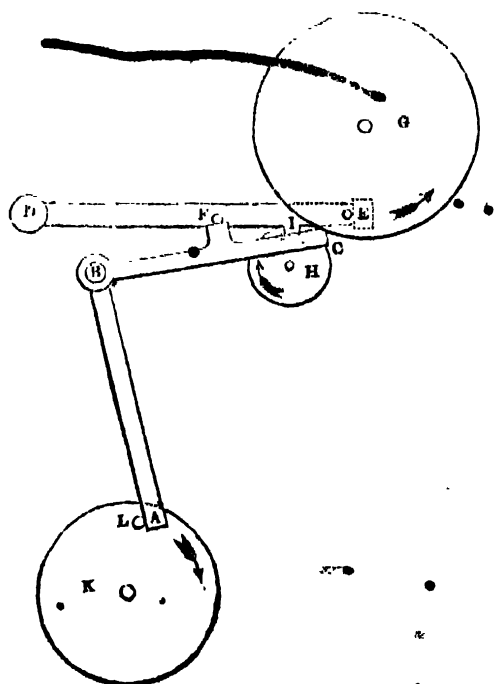


[The Striking-Plate.]

The principle on which this circle is notched is this:—if we imagine it to be divided into seventy-eight equal parts, the distance from a to b will be one of those

parts; from *b* to *c*, two; from *c* to *d*, three; and so on to twelve, making seventy-eight in all. The two first notches in the figure, as in practice, are blended together. This plate must be attached to a wheel with seventy-eight teeth, working in a pinion of six teeth, attached to the pin-wheel, by which combination, while the striking-plate advances $\frac{1}{8}$ th of its circumference, as from *a* to *b*, the pin-wheel will advance one-sixth of its circumference, one peg will pass the hammer-tail, and the clock will strike one; while the plate goes from *b* to *c*, the clock will strike two, and so of all the rest. The object is then to make the striking-plate move on once an hour from notch to notch, and to remain motionless in the intervals. It has been seen that the tendency of the striking mechanism is to continue running rapidly until it is down. To prevent this continued motion, a little pin is fixed in one of the wheels, which runs round six or eight times each stroke; this pin rests against a small stud of metal, which keeps the clock still: if the stud be raised, the pin passes by, the clock strikes, and will continue to do so until the stud returns to its former place. In order to effect this removal, and return at the proper intervals, recourse is had to that part of the clock which is always going on.

The following figure will explain one mode, among many, of effecting this:—



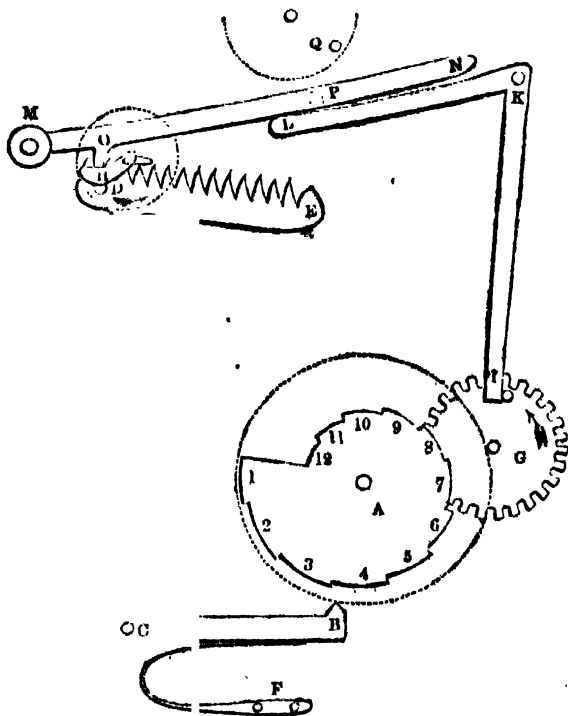
G is a wheel which runs round several times at each stroke of the clock; *H* another wheel which goes round once in the same time. The wheel *H* has a notch in its circumference, in which a pallet, *I*, fixed to a lever, *D E*, rests; so that the clock is kept from striking both by the pallet in this notch, and by the piece of metal *E*, behind the wheel *G*, (shown by dots in the figure) which holds the pin in the wheel. *A B C* is a bent lever, one end of which hangs down in front of the hour-wheel *K*, in which is fixed a pin, *L*, which every hour pushes forward the lever *A*, raises the end *C*, and with it the end *E*, of the lever *D E*, by the help of the pin *F*, fixed in it. The lifting up of this lever disengages, at the same moment, the two wheels *G* and *H*. The striking machinery begins to run, but only for a moment, as the pin, after a single turn of the wheel *G*, is caught upon the end of the lever *B C*, which is now raised; this produces a slight noise called the warning, which is heard a minute or two before the clock strikes. The actual striking does not take place until the peg *L* of the hour-wheel *K*

has quite passed by the lever *A*, when immediately *C* falls down again. The lever *D E*, which was lifted by the rising of *B C*, does not now fall, because the pallet *I* rests upon the wheel *H*, instead of falling into the notch, which advanced a little when the warning was given. The two wheels therefore run round, the clock strikes one, and as soon as the notch in the wheel *H* comes round again, the lever *D E* falls into it, catches the pin in the wheel *G*, and the striking stops.

If there were no other mechanism than this, the clock would strike one stroke every hour, instead of the proper number. Here the striking-plate is called into action, though not inserted in the figure, to avoid crowding. Attached to the lever *D E* is a pallet which we will call *M*, resting in a notch of the striking-plate at *a*, for example, when it is just one o'clock. The clock strikes one, as before described, the striking-plate advances $\frac{1}{8}$ th of its circumference, and the pallet *M* is now at *b*. When two o'clock arrives, the same process is repeated; but the pallet *M*, which was lifted up, is now resting upon that part of the circumference of the striking-plate between *b* and *c*, and will not allow the pallet *I* to fall into the notch of the wheel *H*, until it falls itself into the notch *c* of the striking-plate, when the clock will have struck two. The next hour the clock will strike three, because the distance from *c* to *d* is equal to $\frac{1}{8}$ ths of the circumference of the plate; the next hour it will strike four, and so on to twelve, when the same routine will begin again.

There are many variations of this mode of action, but the principle is the same in all. The striking-plate is subject to a capital defect; it can only strike the hours in succession. If, for example, the clock stops at midnight, after having struck twelve, and is set on again at nine o'clock in the morning, and the hands be put on quickly, the clock will strike one instead of nine, two instead of ten, and will continue to strike wrong afterwards. It is usual in such cases to set on the clock: first to one o'clock, and wait until it has struck; ten to two, and wait again; then to three, four, until nine. To obviate the necessity of so tedious an operation, another piece of mechanism is generally used in England, and also in some foreign clocks, called the rack and snail, which is equally simple with the striking-plate, not more liable to be out of order, and which always strikes the hour pointed out by the hands. In this plan, a plate of brass, *A*, called, from its shape, the snail, is fixed to the hour-wheel, and turns with it. The snail is made on this principle: the circumference of the plate, out of which it was cut, is shown by the dotted line: this circumference is divided into twelve equal parts by lines drawn to the centre: where the snail is marked 1, a portion of the circumference is cut away to a certain depth; at 2, twice as much is cut away; at 3, three times as much; and in the same way to twelve. Close by the snail, but not touching it, is the rack *B C D E*, moveable on the pivot *C*, and pressed upwards by the spring *F*; it is, however, prevented from rising higher than the dotted line in the figure by a pallet, *O*, in the lever *M N*: but if the lever *M N* should be raised high enough to be quite out of the tooth of the rack, the spring would force the rack towards the left hand, until the point *B* reached the snail, and it would of course rise higher as more of the plate had been cut away. The teeth of the rack are so cut, that, when the snail is in the position shown in the figure, four teeth pass the pallet; if number 12 were in the same place, twelve teeth would pass, and so of any other number. The wheel-work is in this clock similar to that in which the striking-plate is used: on the wheel which turns once every stroke, a piece of metal, *H*, is fixed, called the gathering pallet, which runs round with it, in the direction of the arrow within the dotted circle. The

pallet is kept from turning by the pin D, but when the rack falls towards the left hand, it is left at liberty.



I K L is a bent lever, the end I of which is pressed once every hour by a pin in the wheel G, and at the same time the end L rises, lifts the lever N, liberates the rack, and allows the pallet H to run round. This makes the warning; but the clock does not strike immediately, because in some part of the lever M N there is fixed a stud of brass, P, which in rising falls into the way of the pin on the wheel Q, which runs round six or eight times every stroke; consequently, before the clock can strike; this obstacle must be removed. In a minute or two the wheel G will have so far advanced that the pin will pass the lever I, and, except the rack which has receded, all things will return to their former place. The clock is therefore free to strike. As the pallet H turns once with every stroke, its point catches one tooth of the rack, and brings it towards the right hand, where it is held by the click O until the next stroke, when it still further advanced towards its original place. When all the teeth are gathered up, the peg D will prevent the pallet from turning farther, and the clock rests. In this manner, whether the clock be set forwards or backwards, the number struck will always be that denoted by the hour-hand,—if care be taken, in the first place, so to set the hand on its pivot, that the number pointed out may be that which corresponds with the portion of the snail presented to the lever B.

SALT-WATER LAKE IN INDIA.

THE following is the substance of an account of a salt-water lake in the heart of the Mahratta country, which was furnished to a correspondent by two of the *Bey-parrees*, or merchants, who trade in the salt which it produces, and take it on bullocks to Mirzapore, a distance of 600 British miles. On account of the distance, the same persons only make their appearance at Mirzapore, in large bodies and with their families, every other year; and when overtaken by the rainy season, on their return, they form encampments and remain stationary.

"Samber ka Samoond," that is, the Sea of Samber, is estimated to be about sixteen miles square; and its depth gradually increases from the shore towards the

centre, where it is about four or five fathoms. In the middle of this lake there rises an island of an entire solid rock, and about one-third of an acre in circumference, and thirty or forty yards high, by computation, above the surface of the water. In the middle of this rock there is a cleft or natural well of clear and perfectly fresh spring water, the surface of which is about twenty-five or thirty yards from the top of the rock, and which is supposed to be of an equal depth; yet the water of the lake itself is extremely salt. As near every natural curiosity a Brahmin or Fakcer establishes himself to receive the charitable donations of visitors, and sometimes a temple or oratory is erected in the vicinity, so, in the present instance, there is, on the summit of the rock, a small Hindoo temple, built of stone, to which both Moslems and Hindoos, who are concerned in the salt trade, resort to perform their devotions, maintaining that unless such duty were rendered, the produce of the lake would cease. The place is inhabited by a Brahmin. The lake is said to be only supplied in the rainy season by small rivulets, at other times dry, and by the drainings of the surrounding flat country. It has no apparent outlet, but is reduced by evaporation about two or three perpendicular feet every year. It is situated about 240 miles west of Seronge, half in the Jeypore and half in the Jadejore rajah's country; and the value of its produce, or the salt made at Samber, on the eastern side, is estimated at 30,000*l.* a year, which is divided between the two rajahs*. The following is the process by which the salt is obtained at this place.

When the lake has been replenished by the rains, the water is let into tanks from eighty to one hundred feet long, by twenty or thirty wide, with a depth of three or four feet. It is then left to evaporate until April or May, when the sediment is collected into cloths; and after the sand and earthy particles have been washed away with the lake water, the whole is thrown into one vast heap, which soon hardens to a rocky substance of such compact solidity, that the quantity which is not sold or taken away suffers little or no loss from exposure to the heavy rains of the ensuing season.

At Nama, on the western shore of the lake, in the Jadejore rajah's country, the salt is made on his sole account in the following manner:—The beach being rather flat, hard, and sandy, is left by the evaporation of the water, for about half or three-quarters of a mile in breadth, with a dry incrustation of salt, which is scraped up, washed and heaped as at Samber, where none is collected in this manner, as more laborious and less productive than the mode in use, as the bank is there so steep that not more than eight or ten feet is left dry. About sixty coss west of Samber (about 69 English miles) there is a village called Putchbudra, near an extensive plain. Here there are four or five hundred tanks, or salt-pans, similar to those at Samber, which, before the rainy season sets in, are filled with the *Joassee* plants, which grow in the neighbouring jungles to the height of four or five feet, and to the thickness of two or three inches near the root. These are left to be covered by the water which drains in from the plain during the rainy season. Two or three months after, when this water has evaporated to about one-third or more from the surface, about eighteen inches of fine salt is left, in which all but the stalks or the main stem of the *Joassee* is dissolved or incorporated. This is shovelled out to the depth of six or eight inches, when, becoming thinner from the water remaining, the rest is left to serve for seed, as it were, for reproduction the ensuing year. It is evidently left with such a design, as it is shortly after dried by the heat, and might be taken out with ease.

* "March 20, 1799, Ghazeejore;" is the date of our correspondent's information. Things are much altered in India since this time.

Never too late.—Some persons, whose minds have not been properly cultivated in early life, are in more advanced age discouraged from attempting to supply the defect by the notion that the susceptibility of culture is very much impaired, if not altogether lost, and the power of deriving pleasure from such sources infinitely less than in youth. No doubt the faculties have wasted for want of being employed; but it is equally certain that the period of life must be very advanced indeed at which they may not be quickened to use and polished to brightness; and, for the *enjoyment*, we shall quote Dugald Stewart, who, in one of his 'Essays,' says,—“In such men, what an accession is gained to their most refined pleasures! What enchantments are added to their most ordinary perceptions! The mind awakening, as if from a trance, to a new existence, becomes habituated to the most interesting aspects of life and nature—the intellectual eye is ‘purged of its film’—and things the most familiar and unnoticed disclose charms invisible before. The same objects and events which were lately beheld with indifference, occupy now all the capacities and powers of the soul; the contrast between the present and the past serving only to enhance and to endear so unlooked-for an acquisition. What Gray has so finely said of the pleasures of vicissitude, conveys but a faint image of what is experienced by the man who, after having lost in vulgar occupation and vulgar amusements his earliest and most precious years, is thus introduced at last to a new heaven and a new earth:—

‘The meanest floweret of the vale,
The simplest note that swells the gale,
The common sun, the air, the skies,
To *these* are *our* *new* *Paradise*!’

Effect of Chagrin.—Guarino Veronese, ancestor of the author of the ‘Pastor Fido,’ having studied Greek at Constantinople, brought from thence on his return two cases of Greek manuscripts, the fruit of his indefatigable researches; one of these being lost at sea, on the shipwreck of the vessel, the chagrin at losing such a literary treasure, acquired by so much labour, had the effect of turning the hair of Guarino grey in one night.—*Sismondi*.

Snow Houses.—The winter habitations of the Esquimaux who visit Churchill are built of snow, and, judging from one constructed by Augustus to-day, they are very comfortable dwellings. Having selected a spot on the river where the snow was about two feet deep, and sufficiently compact, he commenced by tracing out a circle twelve feet in diameter. The snow in the interior of the circle was next divided with a broad knife, having a long handle, into slabs three feet long, six inches thick, and two deep, being the thickness to the layer of snow. These slabs were tenacious enough to admit of being moved about without breaking, or even losing the sharpness of their angles, and they had a slight degree of curvature corresponding with that of the circle from which they were cut. They were piled upon each other, exactly like courses of hewn stone, around the circle which was traced out, and care was taken to smooth the beds of the different courses with the knife, and to cut them so as to give the wall a slight inclination inwards. The dome was closed somewhat suddenly and flatly, by cutting the upper slabs in a wedge form, instead of the more rectangular shape of those below. The roof was about eight feet high, and the last aperture was shut up by a small conical piece. The whole was built from within, and each slab was cut so that it retained its position without requiring support until another was placed beside it, the lightness of the slabs greatly facilitating the operation. When the building was covered in, a little loose snow was thrown over it to close up every chink, and a low door was cut through the walls with the knife. A bed place was next formed, and neatly faced up with slabs of snow, which was then covered with a thin layer of fine branches, to prevent them from being melted by the heat of the body. At each end of the bed a pillar of snow was erected to place a lamp upon, and lastly, a porch was built before the door, and a piece of clear ice was placed in an aperture cut in the wall for a window. The purity of the material of which the house was framed, the elegance of its construction, and the translucency of its walls, which transmitted a very pleasant light, gave it an appearance far superior to a marble building; and one might survey it with feelings somewhat akin

to those produced by the contemplation of a Grecian temple raised by Phidias; both are temples of art, inimitable in their kinds.—*Franklin's Journey to the Polar Sea*.

SPADA.

LIONELLO SPADA, one of the most celebrated painters of the school of Bologna, was born at that city, in the year 1576, in a very low condition of life. When a boy, he became the servant of the Caracci, and was employed to grind and prepare their colours. The constant opportunities he possessed, while with these eminent men, of seeing pictures and of hearing conversations on the principles of the art, called forth his ambition to become also a painter. This ambition was seen and encouraged by his masters, who gave him the benefit of their advice and instruction, and ultimately admitted him into their academy, where they had the satisfaction of seeing him become one of the most eminent of their disciples.

While Lionello was at the school of the Caracci, a certain Giovannino of Capugnano, having painted at his own village some pictures in fresco, in which the men were larger than the houses, the sheep larger than the men, and the birds larger still than the sheep, was so intoxicated with the applause which his performances obtained from the ignorant villagers, that he determined to go to Bologna,—which he considered as a theatre more worthy of his talents. On his arrival, he opened a school, and so far from acknowledging the immeasurable superiority of the Caracci, he had the impertinence to demand of them a pupil whom he might instruct. Spada, who seems to have loved a joke, offered himself, and for some time amused himself by copying the drawings of Giovannino, whom he treated with all the respect due to a master. But when he felt it time to put an end to this pleasantry, he left in the study a fine head of Lucretia, and suspended over the door some ironical verses on the pretender. This person complained bitterly of the ingratitude with which Spada had thus repaid the rapid progress he had made in painting under his instruction; and the Caracci, to cure the man's folly, were obliged to reveal the whole plot.

Having diligently studied in the school of his first masters, Spada proceeded to Rome, and attached himself to Caravaggio, whom he accompanied to Malta, and at last returned to Bologna the possessor of a new style, which may be characterized as a mean between the manner of the Caracci and that of Caravaggio. He is not equal to the greatest painters in the choice of forms; but his heads are full of sentiment; and his design is always correct, though not always noble. His principal works are the ‘Miraculous Draught of Fishes,’ in the refectory of St. Procolo at Bologna; and ‘St. Dominic burning the Forbidden Books,’ painted for the church of that saint in the same city. The last is considered as his greatest performance.

Our wood-cut is taken from the ‘Musée Français,’ and represents the ‘Return of the Prodigal Son.’ It is considered one of Spada's finest works. “My Father, I have sinned against heaven and against thee!” are the touching words we seem to hear in considering the picture. The colouring of the figure of the son is warm, natural, and full of vigour; the arm, countenance, and fore-shortening are designed and painted with perfect nature. The action of the father is simple and impressive; and the nearly closed eye expresses the tenderness of the old man, while his whole countenance exhibits compassion and love as strongly as that of his son does repentance and hope.

Spada was eventually called to the court of Parma by the Duke Ranuccio, who intrusted to him the charge of ornamenting the magnificent theatre which he had built in that city, and which at that time had no equal. The works which Spada then executed, whether at

Parma or Modena, were in a style completely different from those he had previously painted. It seemed to mingle the characteristics of the school of the Caracci with that of Parma. Perhaps the alteration is not an improvement; at any rate his best works were those painted at Bologna, although the liberal patronage of the Duke Ranuccio afforded him all the opportunity he

could desire for the deliberate study and leisurely execution of his works. His happiness ended with the life of his patron; his talents seem then also to have perished, for all the works he afterwards executed are quite unworthy of him. Happily, perhaps, for his reputation, he did not long survive the duke, but died in the year 1622, in the forty-sixth year of his age.



['The Prodigal Son.']

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THE FLAMINGO



[Flamingoes.]

THE flamingo, although one of the most remarkable of the aquatic tribe for its size and appearance, is by no means well known as regards its habits and manners.

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This bird, with a smaller body than the stork, has the neck and legs much longer, and indeed there is no other bird in which they are so disproportionately long.

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Its length, from the point of the bill to the end of the tail, is usually about four feet and two or three inches; but, to the end of the claws, it measures sometimes more than six feet; and, in general, the bird may be described as standing about five feet high. The head is small and round, and furnished with a bill nearly seven inches long, which is higher than it is wide, light and hollow, and suddenly curved downwards from the middle. The nostrils are linear, and placed in a fleshy membrane. The end of the bill, as far as the bend, is black; from thence to the base, reddish yellow; and round the base, quite to the eye, covered with a flesh-coloured membrane. The neck, as appears in the wood-cut, is slender and of a great length;—the tongue is large and fleshy, filling the cavity of the bill,—furnished with twelve or more hooked papillæ on each side, turned backward; the tip is of a cartilaginous substance. The bird, when in full plumage, is wholly of a deep scarlet (which is said to be the deepest in those of Africa), with the exception of the quills, which are black. From the base of the thigh to the claws is thirty-two inches, of which the feathered part takes up no more than three inches, the bare part above the knee thirteen inches, and from thence to the claws sixteen: the colour of the bare parts is red, and the toes are furnished with a web, as in the duck genus. The long, slender, and delicate legs are described as not being straight, but slightly bent, the shin rather projecting.

The young, which never exceed three in number, differ greatly from the adults, and undergo many changes of appearance. They do not gain their full plumage until the third year. In the first they are, for the most part, of a greyish-white colour; in the second, they are of a clearer white, tinged with red, or rather rose-colour, but the wings and scapulars are red; and, in the third year, a general glowing scarlet manifests itself throughout. The bill and legs also keep pace with the gradations of colour in the plumage, changing gradually as the bird approaches an adult state.

The flamingoes do not commonly appear in Europe. They seem to prefer a warm latitude, and are accordingly found in most of the warmer countries of the globe, within forty degrees on each side of the equator, occasionally visiting, in summer, the more temperate regions. They live and migrate in large flocks, frequenting desert coasts and salt marshes. They are extremely shy and watchful. When feeding, they keep together, drawn up artificially in lines which, at a distance, resemble those of an army; and, like many other gregarious birds, they employ some to act as sentinels for the security of the rest. These sentinels notify the approach of danger by a loud noise like that of a trumpet, which may be heard to a great distance, and is the signal for the flock to take wing. When flying, they form a triangle. The food of the flamingo appears to consist of molluscs, spawn, and insects, which they are represented to fish up by turning their heads in such a manner as to take advantage of the crook in their beak. When at rest, the bird stands on one leg, the other being drawn up close to the body, with the head placed under the wing on that side of the body it stands on.

The resemblance of a flock of flamingoes while feeding to a line of soldiers has already been mentioned; and we may now quote from 'The Architecture of Birds,' in 'The Library of Entertaining Knowledge,' an instance in which they were seriously taken for such. "During the French revolutionary war, when the English were expected to make a descent upon St. Domingo, a negro having perceived at the distance of some miles, in the direction of the sea, a long file of flamingoes, ranked up and preening their wings, forth-

with magnified them into an army of English soldiers:—their long necks were mistaken for shouldered muskets, and their scarlet plumage had suggested the idea of a military costume. The poor fellow accordingly started off to Gonaïves, running through the streets and vociferating that the English were come. Upon this alarm, the commandant of the garrison instantly sounded the tocsin, doubled the guards, and sent out a body of men to reconnoitre the invaders; but he soon found, by means of his glass, that it was only a troop of red flamingoes, and the corps of observation marched back to the garrison, rejoicing at their bloodless expedition."

To the same work we are also indebted for the following account of the mode of incubation among the flamingoes:—"The great length of the legs of the flamingoes obviously unfits them for sitting or squatting upon a flat or low nest, as is the practice of the families allied to them; and hence, according to Linnæus, they select for their nests some projecting shelf of a rock, upon which they can sit astride like a man on horseback without bending their legs. Without discrediting this account, we subjoin that which Dampier gives of the flamingoes observed by him at Rio de la Hacha, at an island opposite Curaçoa, and at the Isle of Sal. 'They make their nests,' he says, 'in the marshes, where they find plenty of slime, which they heap with their claws, and form hillocks resembling little islets, and which appear a foot and a half above the water. They make the base broad, and taper the structure gradually to the top,—where they leave a small hollow to receive their eggs. When they lay a hatch, they stand erect, not on the top, but very near it, their feet on the ground and in the water, leaning themselves against the hillock, and covering the nest with their tail. Their eggs are very long; and, as they make their nest on the ground, they could not, without injuring their eggs or their young, have their legs in the nest, nor sit, nor support the whole body, but for this wonderful instinct which nature has given them.'

"A similar account is furnished by Catesby, who compares the flamingo sitting across its nest to a man on a desk-stool with his legs hanging down. Labat, who found these birds breeding in multitudes on the coasts of Cuba and of the Bahama Islands,—on the deluged shores and low islets,—says, 'I was shown a great number of these nests; they resembled truncated cones, composed of fat earth, about eighteen or twenty inches high, and as much in diameter at the base. They are always in the water; that is, in meres or marshes. Their cones are solid to the height of the water, and then hollow like a pot; in this they lay two eggs, which they hatch by resting on them and covering the hole with their tail. I broke some, but found neither feathers nor herbs, nor anything that might receive the eggs: the bottom is somewhat concave, and the sides are very even.'

Dampier and other travellers speak variously concerning the flesh of this bird. "Although some esteem the flesh very highly, and consider that of the young equal to the flesh of the partridge, others say that it is very indifferent.

In some parts these birds are tamed, principally for the sake of their skins, which are covered with a very fine down, and applicable to all purposes for which those of the swan are employed. When taken young, they soon become familiar; but they are very impatient of cold, and seldom live long, gradually losing their colour, flesh, and appetite; and dying probably from the want of that food with which, in their natural state, they are abundantly supplied. They are caught by snares, or by making use of tame flamingoes. The method is to drive the latter into the places frequented by the wild birds, and to lay meat for them there. No

sooner do the wild flamingoes see the others devouring this food, than they flock around to obtain a share. A battle ensues between the parties, when the bird-catchers, who are concealed close by, take the opportunity to spring up and seize their prey.

BEDOUIN ARABS.

[From a Correspondent.]

THE diverse forms in which man acts wrongly towards man in different countries affords a tolerably good criterion by which to estimate the general condition of each. In the savage state, depredation is usually of a warlike character—the rapid incursion, the sudden surprise, bloodshed, burning, spoliation. In the barbarous state, men still act in bodies for the purposes of pillage, but, unless particularly provoked, they rarely shed blood; poor persons they either dismiss or keep as slaves or servants, and the rich they retain for ransom. In a state of society more advanced, such embodied depredators are dissolved by the vigour of the government and the strength of the law. To them succeed the solitary but daring footpads and highwaymen; who, in their turn, give place to the secret and scientific burglar, the ingenious swindler, and the adroit pickpocket. All these different modes of attaining the same object have been exhibited in this country.

The desert Arabs, or Bedouins, scorn the occupations and habits of civilized or, more correctly speaking, of settled life. The dwellers in towns and houses they regard with supreme contempt; and if themselves obliged by circumstances to sojourn for a time in a town, they exhibit the utmost impatience to return to their tents and desert homes. They are robbers by profession; but to that profession they do not consider the slightest degree of criminality to be attached. If reproached with their predatory habits, they take their stand boldly on the ground, not of necessity, but of right. They are the lords of the desert, which was given to their father Ishmael as his only portion; and if strangers, who have no right to intrude, will pass through, they must pay for it; and they have a right to extract their full inheritance from those to whom the oil and the wine have been given. Hence the plunder of, and exaction from, caravans. They rarely seize the whole. Most of the more valuable merchandise is useless to them; and they are content to take articles of food and clothing, arms, and trappings for their horses, and to fix a sum of money, which must be raised among the members of the caravan, as the ransom of their persons and of the remaining goods. This is often very heavy; but if on a road which caravans much frequent, they take care that it shall not be such as altogether to discourage merchants and travellers from taking the road, experience having taught them that it is more profitable to take a little from many than much from a few. Nevertheless they do often break out into such excesses, that the most important routes are interrupted for years together. We have ourselves known an English party wait an entire year at Aleppo for an opportunity of proceeding across the desert to Bagdad, by a very common caravan road.

The depredations of the Arabs are seldom attended with bloodshed when no resistance is offered; and it rarely is, for the bravest are appalled when aware that if a single Arab loses his life a terrible vengeance will be exacted. If the party of the caravan has anything like a formidable aspect, the Bedouins will not attempt to molest it; and if it is weak, there is no course but submission. We have ourselves travelled about unarmed without personal injury; and with our knowledge of the Bedouin character, it was with much pain and many misgivings that, a few years ago, we saw a party of five English gentlemen leave Bagdad most formidably

armed, and with a firm resolution to fight their way on. We afterwards learned, with little surprise but much sorrow, that three of these gentlemen had been killed on the road, and the other two were happy to escape with the loss of every thing belonging to them. They had been attacked, they fired, one of the assailants was killed, and after that there was no mercy for them. Since this melancholy event, the English have ceased to make the "overland" journey from India through Asiatic Turkey, though we are persuaded they might safely do so if they would be content to buy, rather than fight, their way through these barbarous tribes. It would be also necessary to travel without display; for if they are led to suspect a person who falls into their hands to be of much consequence, they will detain him in the hope of a good ransom. But he would not be ill treated; and we have sometimes thought that a person anxious to make himself well acquainted with their habits of life and modes of thinking could not do better than remain among them in this character for a time.

Not only are the paths of the desert but the navigation of the rivers thus impeded by the Bedouin tribes. The shores of the Tigris, for instance, are inhabited by the Beni Lam, the Chaob, and other tribes, who claim a tribute of all vessels that pass to or from Bagdad, and when the Bagdad government is weak, go so far as to plunder them completely. In connexion with this subject, a few extracts from our journal, kept during a passage down the Tigris, in the early part of the year 1832, may not be without interest.

"We are now arrived at that part of the river where it seems that attacks from the Arabs most frequently occur. Our reis (master of the vessel) has consequently been talking very big all day about the valorous deeds he has done and will do. His gun, an English piece, has been carefully cleaned, and he has girded on his cartridge-case and powder-flask.

"About four o'clock this (the following) morning a formidable assault was made upon our boats from both sides of the river. Our own vessel and another were allowed to pass with comparative impunity; but the third, which they had probably ascertained to be the richest, was fiercely assailed from the shore. In the hope of intimidating them, the servants of the gentleman in that boat were directed to send back a volley from their small arms in return. This discharge was followed by a very piercing and peculiar cry from the women, which seemed to indicate that it had taken more effect than was intended among the assailants, who suffered us to proceed without further molestation, probably concluding that we were too strong for them. As we were going with a fair wind at the time of this attack, and the Bedouins had no boats with which to attempt boarding, they must have trusted that the intimidation occasioned by their numbers and their firing would have made the river-men bring the vessels ashore, and submit quietly to their pleasure. At that time every thing depended on our being able to keep the mid channel; but this was very difficult, for we just then came to a flexure of the river which so changed our position with regard to the wind, that it was only by the most vehement exertions of the men that we were prevented from driving on shore before the sails could be shifted. Had we really done so, we feel that we could have expected nothing less than to have been all massacred. During this transaction the din was perfectly terrific. Intermingled with the noise of the firing were heard the wild and savage tones of the war-cry, which was raised on the shore and echoed by our men, who in every way endeavoured to make as much noise as possible in order to convey an exaggerated idea of their numbers. The deep, shrill yells of the women were particularly appalling. They usually attend on occasions of this sort to furnish the men with refreshments, to incite them by songs, to dress

their wounds, and we understand that they sometimes assist in actual conflict.

"Our reis" made a great parade of himself and his gun the following day, and seemed decidedly of opinion that our happy escape from the clutches of the Bedouins was mainly attributable to his own prowess and the excellence of his piece."

COFFEE.

[From a Correspondent.]

IN a late Number, we inserted a description which had been sent to us of the best mode of preparing cocoa for use: we shall perhaps do what is acceptable to a greater proportion of our readers by offering similar directions for the preparation of coffee. It is a singular fact that, travel where you may on the continent of Europe, you will everywhere find this grateful beverage prepared in a manner far superior to that which is ordinarily attained even in opulent families in England, where the "straw-coloured fluid," commonly introduced under the misnomer of coffee, is certainly not calculated to spread a liking for it as an article of diet. We consider our deficiency in this respect is to be regretted, not only because it is always desirable to add to and to make the most of our innocent enjoyments, but also because it is very probable that if by any means coffee, properly prepared, could be introduced as a staple article of consumption among the population generally, it might have a considerable moral influence, and might wean many from that vice of sottishness which is now in so lamentable a degree a national reproach to us. If our artisans and labourers, who feel a natural craving for some stimulus after their day of toil and exhaustion, could be content to gratify this craving by the use of the sober berry, which "cheers but not inebriates," what a vast increase to the happiness of their families might be experienced,—what improvement to their own health, both physical and moral!

Coffee, when properly prepared, has the very useful and somewhat peculiar property of exhilarating the spirits and of producing even temporary wakefulness, but which condition passes away in the course of an hour or two, and leaves the frame in a state of calmness which disposes it for profound and refreshing sleep. That these effects do not ordinarily follow from the use of coffee may be attributed to the faulty manner of its preparation.

Professor Donovan has detailed, in a paper inserted in the 'Dublin Philosophical Journal,' for May, 1826, the particulars of a series of experiments made by him with a view to ascertain the best methods for extracting from coffee all the virtues which are inherent in the berry; and he has there described so philosophically and so practically the preferable plan for that end, that we cannot perhaps do better than lay before our readers the result of his investigations.

Mr. Donovan found, that what we shall call the medicinal quality of coffee resides in it independent of its aromatic flavour,—that it is possible to obtain the exhilarating effect of the beverage without gratifying the palate,—and, on the other hand, that all the aromatic quality may be enjoyed without its producing any effect upon the animal economy. His object was to combine the two.

The roasting of coffee is requisite for the production of both these qualities; but, to secure them in their full degree, it is necessary to conduct the process with some skill. Let not our readers be alarmed, however, by this announcement, for the degree of skill required is

now unfailingly attained by the cook of every petty *cabaret* from one end of France to the other, and is fully within the reach of every one who is disposed to use a very small amount of carefulness. The first thing to be done is to expose the raw coffee to the heat of a gentle fire, in an open vessel, stirring it continually until it assumes a yellowish colour. It should then be roughly broken,—a thing very easily done,—so that each berry is divided into about four or five pieces, when it must be put into the roasting apparatus. This, as most commonly used, is made of sheet-iron, and is of a cylindrical shape: it no doubt answers the purpose well, and is by no means a costly machine, but coffee may be very well roasted in a common iron or earthenware pot, the main circumstances to be observed being the degree to which the process is carried, and the prevention of partial burning, by constant stirring. When coffee has lost one-fifth part of its weight in roasting it will be in the best state for use;—it will then be of a bright chocolate colour,—will have swollen to nearly twice its original size, and will have a highly aromatic smell, and warm, bitterish taste. If the heat be continued longer, the grateful flavour will be impaired, and the bitterness increased to a disagreeable extent. "Practice makes perfect," and as one of the requisites for having good coffee is that it shall have been recently roasted, the necessary amount of practice will soon be gained.

Coffee should be ^{ground very fine for use, and only} ground when it is wanted, or the aromatic flavour will in some measure be lost. To extract all its good qualities, the powder requires two separate and somewhat opposite modes of treatment, but which do not offer any difficulty when explained. On the one hand, the fine flavour would be lost by boiling, while, on the other, it is necessary to subject the coffee to that degree of heat in order to extract its medicinal quality. The mode of proceeding, which, after many experiments, Mr. Donovan found to be the most simple and efficacious for attaining both these ends, was the following:—The whole water to be used must be divided into two equal parts. One half must be put first to the coffee "cold," and this must be placed over the fire until it "just comes to a boil," when it must be immediately removed. Allowing it then to subside for a few moments the liquid must be poured off as clear as it will run. The remaining half of the water, which during this time should have been on the fire, must then be added "at a boiling heat" to the grounds, and placed on the fire, where it must be kept "boiling" for about three minutes. This will extract the medicinal virtue, and if then the liquid be allowed again to subside, and the clear fluid be added to the first portion, the preparation will be found to combine all the good properties of the berry in as great perfection as they can be obtained. If any fining ingredient is used it should be mixed with the powder at the beginning of the process.

We have said nothing as to the proportion of coffee to be used to a given quantity of water. Some persons will prefer to drink it stronger than others, and many must restrict themselves in this respect on the score of economy. We have found that three ounces of coffee will provide an ample beverage for four or five persons, and of a very satisfactory degree of strength. If milk is added it should be previously made hot.

Several kinds of apparatus, some of them very ingenious in their construction, have been proposed for preparing coffee, but they are all made upon the principle of extracting only the aromatic flavour, while Professor Donovan's suggestions not only enable us to accomplish that desirable object, but superadd the less obvious but equally essential matter of extracting and making our own all the medicinal virtues of coffee.

* The reis and sailors were town Arabs,—natives of Bussorah; the Bedouins hate and scorn these their quiet and industrious brethren.

HOUSE OF THE FAUN, AND ITS MOSAIC FLOORS.



POMPEII, as most of our readers will remember, as we have frequently alluded to it in the 'Penny Magazine,' is an ancient city built at the roots of Mount Vesuvius, that was buried by an eruption of that volcano in the first century of the Christian era, and that, after remaining concealed and unknown for almost seventeen hundred years, has been discovered, excavated, and partially thrown open, within these last hundred years. In all instances the roofs, whether of private houses or of temples and other public edifices, have been destroyed by the scoriae, pumice, sandy earth, and other matter discharged by Vesuvius, that pressed upon them, and then filled up the interior of the edifices almost as regularly and compactly as melted metal thrown over a mould. But with the exception of the roofs, which in most cases it would be an easy task to restore, the ancient dwelling-houses of Pompeii look as if they had been tenanted but yesterday, and as if they might be inhabited again to-morrow.

The interior walls of the superior class of these houses are generally ornamented with mouldings in stucco, and with paintings of fruit, flowers, landscape, figures or arabesques; and, where only a plain surface was painted, the colours, such as greens, blues, purples, &c., are as fresh and pure as though the painters' brushes had been just passed over them. In many instances the floors of the halls and rooms are covered with mosaics. Some of these works are exceedingly interesting from their position, and in reference to the usages of ancient days. On the threshold of one private house there is written, in mosaic, and in large capital letters, the Roman term of salutation, "SALVE," or "Welcome!" At the entrance of another house there is spiritedly represented, in mosaic on the floor, the figure of a fierce, chained dog in the act of flying at some one,—and the words "CAVE CANEM," "Take care of the Dog," are inscribed beneath it. The chain and the jagged collar are much the same as we now use, and the dog is not unlike the *cane Corso*, or Corsican bull-dog, much prized by the modern Italians as a house-dog, on account of its strength, boldness, and ferocity,—though, as Lord Byron correctly observed, the breed is deficient in that wonderful "tenacity of tooth" which distinguishes the English bull-dog.

In some cases the mosaic work that covers the rooms like a carpet, or ornamental oil-cloth, merely represents a minutely-dotted surface of pieces of black and white marble, with or without a fancy border round it. In other cases more colours are employed, and fantastic or elegant patterns delineated—and, in a few instances, works of really high art in mosaic are found on the floors over which the ancients walked—we hope, in slippers. Nothing, however, of this sort, hitherto discovered, is at all equal to the mosaic that forms the subject of our present engraving.

In 1829 the excavators at Pompeii discovered a house of unusual beauty and size. This house stands in a wide street which extends from the Temple of Fortune to the ancient gate leading to Nola, dividing as it were Pompeii into two parts. The entrance to the house is on a large scale, and of a noble design—two uncommon circumstances, for the private houses generally are very unambitious. Almost at the threshold the entire perspective of this extensive mansion becomes apparent at the first glance. First, there is a large open Atrium, the walls of which are enlivened with brilliant and diversified colours, and the pavements formed of blood-red jasper mixed with oriental and figured alabaster: at the sides of the atrium are various small bed-rooms, a hall of audience, and dining-rooms. Beyond is a flower-garden; in the centre was a fountain with a marble basin beneath to catch the falling waters. Four and twenty Ionic columns formed a portico around; and

between the gratings, the statues, and the blue and purple curtains which waved in their intervals, other and more extensive colonnades might be perceived. Under the shade and cover of the porticoes are small temples where the household gods were worshipped. Two elegant bronze tripods smoked with perennial odours before the statues of Phœbus, of Concord, and the Graces, which were gathered up in fragments when the place was excavated. The view in the background was bounded by the summit of Mount Vesuvius.

Everything about the mansion remained in the same situation in which it was previous to its destruction. Large quantities of vases and household furniture, of every form, of bronze and glass, were collected in every part; and cups, pateræ, and plates of silver were found laid out on several tables of marble. A fine statue in bronze, of a faun, from which the house takes its name, was discovered in the centre of the atrium. The floors of the principal entrance, the dining-room, and the rooms which adjoined it were paved with mosaics, composed of minute pieces of marble, almost all of natural colours, representing in one place a rich festoon of fruit, of flowers, and of scenic masks; in another, the sea-shore with fish and shells; again with ducks, and birds in the claws of a cat; a lion darting on his prey forms another subject, and a fifth represents Bacchus upon a panther. The little deity, crowned with ivy, supports a large wine-cup in one hand, and with the other a garland of vine-leaves and flowers, which fall and encircle in an elegant manner the neck of the panther. In this Chamber were found two large and heavy gold bracelets, two earrings, and seven rings with most beautifully engraved gems; besides a heap of gold, silver, and bronze coins and medals.

The women's apartments are separated from the other part of the habitation,—they stretch along the side of the atrium and the garden. Behind the garden, in a delightful and picturesque situation, there is a dining-hall with a triclinium*. The waters of the Nile, represented in mosaic, seem to run upon the floor between the columns which decorate the entrance to this hall,—and present to the guests a view of its banks covered with birds, plants, and foreign animals. Conspicuous among the animals are, the hippopotamus, which is now rarely or ever found in that part of the Nile familiarly known to the ancient Greeks and Romans, though in their time it seems to have abounded in Egypt, and the crocodile, as shown in the lower compartments of the illustration, where the black circles mark the position of the pillars. The floor of the dining-hall is covered with a large and spirited picture in mosaic, (see the embellishment,) measuring fifteen feet by seven feet eight inches. All that we can safely say on the subject of this picture is, that it represents a battle between Greeks and Persians. Thus much, indeed, is made out by the costume, arms, and countenances of the combatants.

Italian critics, who are apt to lose too much time on these uncertain subjects, and to be too positive in their opinions, seem, however, to have decided that this splendid mosaic must either represent the battle of Platea, in Greece, or the great conflict between Alexander and Darius, at Issus, in Asia. On the supposition of its representing the battle of Issus, Signor Bonucci, Professor Quaranta, and others have proceeded very boldly, and have not only recognised Alexander the Great, but the true portrait of Darius, "which has hitherto been wholly unknown."

Our readers may choose between Issus and Platea; but it is probably neither, and only a fancy battle-piece. There can be no doubt, however, as to the excellence

* The ancient Romans took their meals, not seated on chairs and at a table, as we do, but in a recumbent posture. The triclinium was the thing they reclined upon when dining and supping.

of the mosaic as a work of art, or that it represents a conflict in which the valorous disciplined Greeks are obtaining a victory over the Persians. The Eastern chief, in his war-chariot, drawn by four horses, his charioteer flogging the horses into speed, and the confusion created by this flight, are represented with infinite spirit and truth, and tell a very intelligible though a somewhat general story.

Our readers must be reminded that a few years before Pompeii was buried by the volcano it was very much damaged by an earthquake; and also that the inhabitants of the devoted town were in the act of repairing these damages when the eruption began*.

It appears that the mosaic floor now under our consideration was partially ruined by this earthquake, and that, between the earthquake and the eruption, attempts were made to restore it. These restorations are in a very coarse, imperfect style. It is much better to possess this valuable and venerable relic of art mutilated as it is than to have it disguised by rifaccimentos. By studying the engraving, our readers will have a very good notion of the composition, and another insight into that ancient world of art which is best calculated to elevate and direct their taste.

Signor Bonucci and others say that in contemplating the original work, when first discovered and cleaned, they were so much struck with some of the Persian heads that they thought they had never seen anything so perfect—that they might stand a comparison with the finest heads of Raphael. They also add, that in the original the colours are at once vivid and harmonious;—that the sky has a wonderful transparency and appearance of atmosphere in it, and that the figures, both of men and horses, are admirably drawn, and full of life and action.

PROGRESS OF PAUPERISM.

THE welfare and happiness of every individual mainly depend on the obedience to a law which is unalterably annexed to his state of being. He must rely on the produce of his industry for the support of his existence:—he must live by the sweat of his brow. This hardship is perhaps more apparent than real. Some employment is required for the benefit of our health, and some is necessary to amuse and occupy the mind. It is true that some labour is exacted from us beyond those limits, to furnish out the means of subsistence; but still it is mitigated by a circumstance attending it which affords a sure ground of consolation, and leaves open to almost every individual the cheering prospect that the burthen of his work will cease long before his life is drawing to its close. We are made sensible by this circumstance that our existence is not a condemnation to punishment, but a great benefit conferred on those who can prevail on themselves to forego present enjoyment for future ease.

Every individual, even in the least favoured station of society, may produce more than is absolutely necessary for him to consume—may gain more than it is required for him to expend, and may, by forbearance, lay by some part of the fruits of his labour for future use. Nor do the unforeseen calamities which sometimes afflict individuals, and sometimes classes of the community, and which cut off those upon whom they fall from the immediate benefit of the rule, form any substantial objection to its general application. Such unexpected calamities make but a small proportion of the evils which infest us, and the sufferers may safely trust they will not be left by the rest of the community without relief. It is hardly necessary to

give instances of the various modes in which this saving may be made. Let any person, who has passed some years after his arrival at the age of manhood, bring back to his recollection the manner in which he has spent the time he had passed, the ways in which he had disposed of his earnings, his useless and regretted expenditure, the means that had been offered and he had neglected of earning, and the opportunities he had lost of improving his condition. He would find, upon any just and honest calculation, that a little more than one-half of a life spent in industry and forbearance would have secured for the remainder of his existence a life of leisure, and even of idleness, if he should think idleness desirable.

If one hundred men were endowed with equal powers to labour, and placed on one hundred allotments of land of equal dimensions and equal capacity for production, it is evident that the most industrious amongst them would obtain the largest produce in return for the work he had done; and amongst the most industrious the one who consumed the smallest portion of his productions would lay by the greatest share for his future use. Now, if one of these one hundred persons, from disinclination to work, relaxed in his labour, and did not produce enough to support himself, he would probably apply to his more industrious and abstemious neighbour to assist him with some portion of his savings. This perhaps would be granted by indulgence. If this least industrious individual of the community could rely upon the continuance of these favours, it is probable he would not attempt again to exert himself efficiently in the production of his maintenance;—he would sit down contented with the hope of the same relief. But if, in the origin of this society, or at any time during its continuance, a compact had been formed amongst them to supply with the means of existence the members of the community who had neglected to lay by some portion of their produce for future use, it is certain, except such law was guarded by great precautions and vigilance in its execution, that the most unprincipled and worthless among them, thus sure of support, would relax in their industry and become the easy prey of their vicious inclinations and appetites, to the injury of themselves and their associates.

Now this supposed case exhibits a state of circumstances in which both the folly of idleness, as it affects the individual who is guilty of it, and the injustice of it, as it regards the rest of the community, are undeniable. It is folly, because the industrious portion of society, who are always the most powerful, may think it proper to refuse a gift which must be drawn from the means produced by their own forbearance, and kept for their own use, and which the idle and dissolute can have no natural right to demand; and it is certainly injustice, for what can be more unjust than to claim from the hard-earned stores which labour and economy have collected a supply to ward off the consequences which attend on vice and indolence?

The same principles which would influence the conduct of individuals in this supposed simple state of existence, of which we have given an example, are at work on the more complex frame in which it is at present constituted. Vice and idleness are fully as prevalent in them, in proportion to the increased population, and the inducements to indulge in them are more powerful. In an advanced state of civilisation, the necessary separation of the people into different ranks prevents a frequent intercourse between them; they are little acquainted with each other's mode of life and manners. By the various modifications of property a large portion of it is exempted from injury on the commencement of a decline in our prosperity. The income of the mortgagee, the annuitant, the fundholder are not affected. The intricacy of the rights

* See volumes on 'Pompeii' in the series of 'Entertaining Knowledge.'

which flow from the employment of a large capital, and the indirect and unseen manner in which the public burthens are sometimes imposed and raised for the support of those whom idleness has impoverished and vice rendered improvident, conceal in part from the view of a large portion of the community the early symptoms of a derangement in the moral habits of the labouring population. These evils are gradually and silently extended.

The wealth which had been accumulated in seasons of prosperity prevents their burthen from being immediately felt, and the approaching danger from being discovered. It is only when they have made great progress, when landed property begins to sink in value, and the store of wealth evidently to diminish, that a nation is aroused from its slumber, and thinks of searching for the grounds of the alteration. Such reflections can hardly escape even those who are most unused to observe attentively the scenes which human affairs present.

The prosperity of each individual, and of states, which are made up of individuals, is the result of the due observance of the conditions of industry and forbearance imposed on us as part of our state of being. They serve as the foundation (like gravitation in the mechanism of the universe) on which our welfare must depend for its stability: we are indebted to them for the wealth which has been accumulated, and it must be preserved from crumbling into the dust from which it has been raised by the same labour and abstinence by which it has been gathered up for our use. Under no form of government, under no system of laws, can we dispense with an attention to these conditions. In proportion as individuals relax in their observance of them, their well-being and happiness must be ultimately diminished: in proportion to the number of individuals who thus neglect their own welfare must the strength and prosperity of the state, of which they compose a part, be impaired.

These truths may be illustrated and exemplified by the effects they would produce on a district or a parish. Every person contained within such division must subsist on the produce of his own industry, whether it is obtained in kind or in money: as he received it he would either consume the whole or lay by a portion; or if he does not labour, he must be maintained by means of some store he had accumulated. There are but these two ways of being maintained without injury to the community to which he belongs. But if, by neglect or idleness, he fails in producing by his labour that which is necessary for his consumption, and has nothing of his own, but throws himself upon his neighbours to be supplied either by a part of their immediate gains, or from the provision they had set by for future use, it is evident that he diminishes the welfare of each individual from whose gains or property he thus takes a share. If the number of such individuals so living without labour, or without procuring a sufficient subsistence for themselves, amounted to a large proportion of such society, the result would be a general impoverishment, and if they continued to increase, the general ruin. Nations may perish by other means than the sword of a conqueror. They may be extinguished by vices and defects which gradually corrode and undermine them, which it requires great vigilance and sagacity to detect, and great courage and resolution to eradicate and subdue. These defects may originate in laws which are mischievous in themselves; in laws wisely enacted, but erroneously administered; in the misapplication of wealth; in bad examples; in the inculcation of mistaken principles of conduct. Such causes, and many others, may combine to corrupt the population of a country; to encourage idleness and vice; and to betray the people to abandon the course

marked out for them by the laws of nature, which no one is permitted to leave with impunity.

For many years past, in this country, it had become evident that a change had taken place in the habits of the labouring classes: their industry was abated; their love of independence was less conspicuous; their reluctance to receive relief from funds collected from the rest of the community was less marked. The signs of this change and its tendency to increase became daily more manifest. The attention of the public and of the government were now fixed on these formidable appearances.

This change has been attributed to various causes: they have been successively examined and traced in their operation with the most signal sagacity and perseverance. It is scarcely possible to doubt that these fearful consequences are derived from a variety of sources. By a general concurrence of opinion, it appears to be admitted that the present system of administering the Poor Laws has contributed to produce a large share of those evils, and has assisted to aggravate the malignity of those which originated in other events. Many of the laws enacted for the relief of the poor contained provisions which proved, when carried into execution, to be clearly detrimental to the interests of all classes of the community. Some of them appeared to be wise and proper in themselves, but had been abused in practice, and perverted from their real object and intention. It appeared certain that, in the distribution of the funds raised under the name of a Poor Rate, great mismanagement prevailed. It was wasted upon persons who had no claim to it; lavished upon occasions where its application was neither justified by law nor necessity; it was made a resource of easy access to the indolent; it seduced the industrious from their habits of industry; and had, by such employment, a direct tendency to convert every labourer into a pauper—to degrade his mind and corrupt his morals: for who can retain proper feelings of his own worth and independence who consents to live without necessity on the charity of others, or take, in the form of a gift, the subsistence which, by means of his own labour, he may demand as a right.

These views produced several attempts, by means of new laws, to amend the system. The remedies thus proposed were sometimes locally and partially successful; but the body of the mischief continued to increase and advance, and threatened the destruction of all property and social order.

It became apparent that it was necessary to adopt a more general and efficient change in this department of the law, and stop up one of the channels through which so much mischief was poured in upon the community. It was proposed by the government that this alteration should be grounded on a full, accurate, and comprehensive examination of the management of the poor, of all the varieties of practice, and of all facts which could be collected on the subject throughout the kingdom. A commission was issued by the Crown to several persons, who were empowered to employ assistants to collect such information for them; and founded upon the Report of the Commissioners, which has been extensively circulated, a great change in the Poor-Laws is now under the consideration of Parliament. It is not our purpose to enter into any explanation of their proposed amendments, but to indicate the several circumstances which render amendment necessary.

* The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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BOY EXTRACTING A THORN.



[Boy extracting a Thorn.]

THIS bronze statue is one of the best preserved among the monuments of Grecian art which have descended to our own times. It stood, many ages since, in the Vol. III.

Roman capitol, and has been the subject of many tales, not only without foundation, but which the noble and simple style of the figure prove to be erroneously dated.

The common people believe it to represent a young shepherd who, during the intestine wars of the middle ages, was sent to observe the enemy, and into whose foot a thorn had entered, on his return to Rome to relate what he had seen. But the incontestable antiquity of this fine work would rather incline one to believe that it represents a young victor in the races of the Stadium, who apparently had in running met with an accident, but notwithstanding this disadvantage had won the prize. The custom of perpetuating by the position and action of athletic statues some one of the circumstances attending the victory in such races was early established in Greece. The absolute nakedness of the figure shows that this is an athletic statue. Its form, although somewhat slender, unites much elegance with the most exact adherence to nature: it is at once felt that living nature must have afforded the model. The posture of this young man, who is stooping, and appears to give all his attention to the extraction of the thorn from his left foot, which is placed upon his knee, possesses so much of simplicity and grace as to excite the untiring admiration of the spectator. The writer in the 'Musée Français,' from which this description, as well as the wood-cut, is taken, thinks that the statue must have been executed during the sixty years which elapsed between the period when the athletic statues began to be made in characteristic attitudes, and the time of Lysippus, when a style more soft and ideal marked the final limits of the art. It is probable, however, that he is mistaken in the era thus assigned.

This statue, which formerly stood in the palace of the Capitol at Rome, was ceded to France by the treaty of Tolentino; but, we believe, has been subsequently restored. It is two feet five inches in height, and the casting is clean and fine. Some defects appear to have been remedied by pieces attached with much art; and some holes, occasioned by time, were filled up with great care in the sixteenth century. The bronze rock on which the figure is seated is entirely ancient, and of the same material with the statue. The eyes are hollow, and were doubtless filled up anciently with some other material,—probably silver. The Greek school very rarely neglected this practice in works of bronze.

GHOSTS.

We are sorry to think that the belief in this class of apparitions is still prevalent among our agricultural population, and yet lingers in the cities and the towns. We are not disposed to enter largely into the subject at present, but avail ourselves of the opportunity which is afforded by a correspondent of stating some considerations which tend to refer such appearances to the state of the ghost-seer's health or nerves. It may be stated generally, that it is not the young and vigorous who witness such appearances, but the old, the nervous, and the timid.

When the nerves are disordered, either naturally or otherwise, the patients become subject to delusions and false sights, which are as real to them as they may appear perverse and ridiculous to others whose nerves are in perfect health. These patients are naturally very ready to swear to seeing a ghost, or spirit, or living person not present, because they do actually, in the day-dreaming of their mind's eye, see what they swear to. The nerves of ghost-seers are slightly disordered from fears brought on by having heard so many stories about them when young, and from natural credulity and tendency to indulge in the marvellous. When the nerves are much diseased, the delusions become more fixed and permanent, and the patient is then termed a lunatic.

• A young clergyman, who was given to study, and who took but little exercise, was one morning visited by two friends. In the passage beyond them he saw another friend, and asked them why he did not come in along with them: and he saw that third friend so plainly that nothing

would convince him to the contrary, (though he immediately searched everywhere about the house,) until he was told by that third friend afterwards that he was at the time many miles off. The doctor told him that he must take more exercise, or his nerves would become disordered altogether.

Sometimes these delusions are brought on by bodily diseases, and when the patient's body is recovering the nerves recover likewise. The following story is a remarkable instance of it:—"A lawyer in Edinburgh was very ill with a fever, but nobody slept or sat up in the room with him, his nurse being in a room below. Being winter time, he had a fire in the room; and one night he saw sitting in the easy chair a young lady he had formerly been acquainted with, but who had been dead two years. He saw her so plainly, and the glare from the fire played and flashed on her in such strong light and shade, just the same as if she was actually there, that he rapped on the floor with the end of his stick to fetch the nurse up; but she could see nobody in the chair, nor was there any impression on the cushion since she placed it there. Every night for three weeks this vision was repeated distinctly; he then began to mend rapidly, and as he mended, though the vision was still repeated, it grew fainter and fainter every night, and after his health was restored never appeared again. A lawyer, being in the habit of reasoning, and arguing, and sifting the truth, could, on mentioning such a circumstance to his doctor, become at once convinced that the young lady was no actual vision or ghost, but a consequence merely of the nerves being diseased as well as the body. An ignorant person would never have been convinced but that the vision was real and not imaginary."

Sir Walter Scott says, in his work on 'Demonology,' that "The remarkable circumstance of Thomas, the second Lord Lyttleton, prophesying his own death within a few minutes, upon the information of an apparition, has always been quoted as a true story. But of late it has been said (and published) that the unfortunate nobleman had previously determined to take poison, and of course had it in his own power to ensure the fulfilment of the prediction. It was no doubt singular that a man, who meditated his exit from the world, should have chosen to play such a trick on his friends. But it is still more credible that a whimsical man should do so wild a thing, than that a messenger should be sent from the dead to tell a libertine at what precise hour he should expire."

GRATITUDE OF A CAT.

THE cat certainly cannot boast much of its reputation for gratitude; but a correspondent says, "I have met with some instances which prove that there is a diversity of character and feelings in cats as well as men. I was on a visit to a friend last summer, who had a favourite cat and dog, that lived together on the best possible terms, eating from the same plate and sleeping on the same rug. Puss had a young family while I was at the park, and Pincher paid a daily visit to the kittens, whose nursery was at the top of the house. One morning there was a tremendous storm of thunder and lightning; Pincher was in the drawing-room, and the cat was attending her family in the garret. Pincher seemed to be considerably annoyed by the vivid flashes of lightning which continually startled him; and just as he had crept closer to my feet, some one entered the drawing-room followed by puss, who walked in with a disturbed air and mewling with all her might. She came up to Pincher—rubbed her face against his cheek—touched him gently with her paw, and then walked to the door—stopped—looked back—mewed—all of which said as plainly as words could have done, 'Come with me, Pincher'; but Pincher was too much frightened himself to give any consolation to her, and took no notice of the invitation. The cat then returned and renewed her application with increased energy; but the dog was immovable, though it was evident that he understood her meaning, for he turned away his head with a half-conscious look and crept still closer to me; and puss, finding all her entreaties unavailing, then left the room. Soon after this her mewling became so piteous, that I could no longer resist going to see what was the matter. I met the cat at the top of the stairs, close to the open door of my sleeping apartment. She ran to me, rubbed herself against me, and then went into the room and crept under the wardrobe. I then heard two voices, and discovered that she had brought down one of her kittens and lodged it there for

safety; but her fears and cares being so divided between the kittens above and this little one below, I suppose she wanted Pincher to watch by this one while she went for the others, for having confided them to my protection she hustened up stairs. I followed her with my young charge, placed it beside her, and moved their little bed further from the window through which the lightning had flashed so vividly as to alarm poor puss for the safety of her family. I remained there till the storm had subsided, and all was again calm. On the following morning, much to my surprise, I found puss waiting for me at the door of my apartment; she accompanied me down to breakfast, sat by me, and caressed me in every possible way. She had always been in the habit of going down to breakfast with the lady of the house, but on this morning she had resisted all her coaxing to leave my door, and would not move a step till I made my appearance. She went to the breakfast-room with me, and remained, as I have mentioned, until breakfast was over, and then went up stairs to her family. She had never done this before, and never did it again: she had shown her gratitude for my care of her little ones, and her duty was done."

GIPSIES.

THE origin of this tribe of vagabonds is somewhat obscure; at least the reason of the denomination is so. It is certain the ancient Egyptians had the character of being great impostors, whence the name might pass proverbially into other languages, as it is pretty certain it did into the Greek and Latin; or else the ancient Egyptians being much versed in astronomy, which, in those days, was little else than astrology, the name was on that score assumed by those tellers of fortune. There is scarcely any country in Europe but has its Egyptians, or Gipsies, though not all of them under the same name. The Latins call them *Ægyptii*; the Italians *Cingani*, and *Cingari*; the Germans *Zigeuner*; the French, *Bohemians*; others *Saracens*, and others *Tartars*. They made their first appearance in Germany in 1517, exceedingly tawny, and in pitiful array, though they affected quality, and travelled with a train of hunting-dogs after them like nobles. Ten years afterwards they came into France, and thence passed over into England. Pope Pius II., who died in 1464, mentions them under the name of *Zigari*, whom he supposes to have migrated from the *Zigi*, which nearly answers to our modern *Circassia*. Mr. Grollman, in a German dissertation on the gipsies, asserts that they came from *Hindustan*. This hypothesis he grounds chiefly on the similarity of the gipsy language to the *Hindustanee*. He supposes them to be of the lowest class of Indians, viz., "*Pariahs*," or, as they are called in *Hindustan*, "*Suders*." Sir W. Jones (*Asiatic Researches*, vol. iii., p. vii.) suggests that in some piratical expedition they might have landed on the coast of Arabia or Africa, whence they might have rambled to Egypt, and at length have migrated, or been driven, into Europe. A race of banditti resembling the gipsies in their habits and features is to be found among the *Tryglodytes*, (called so from *τρύγλη*, a rock, and *δύω*, I enter,) in the rocks near Thebes in Egypt. Mr. Grollman estimates the number of these wanderers to be between 700,000 and 800,000. By an ordinance of the states of Orleans, in the year 1560, it was enjoined that all these impostors, under the name of *Bohemians* and *Egyptians*, should quit the kingdom on penalty of the galleys. Upon this they dispersed into lesser companies, and spread themselves all over Europe. They were expelled from Spain in 1591. The first time they appeared, according to accounts, in England was in the reign of Henry VIII., in the year 1530.

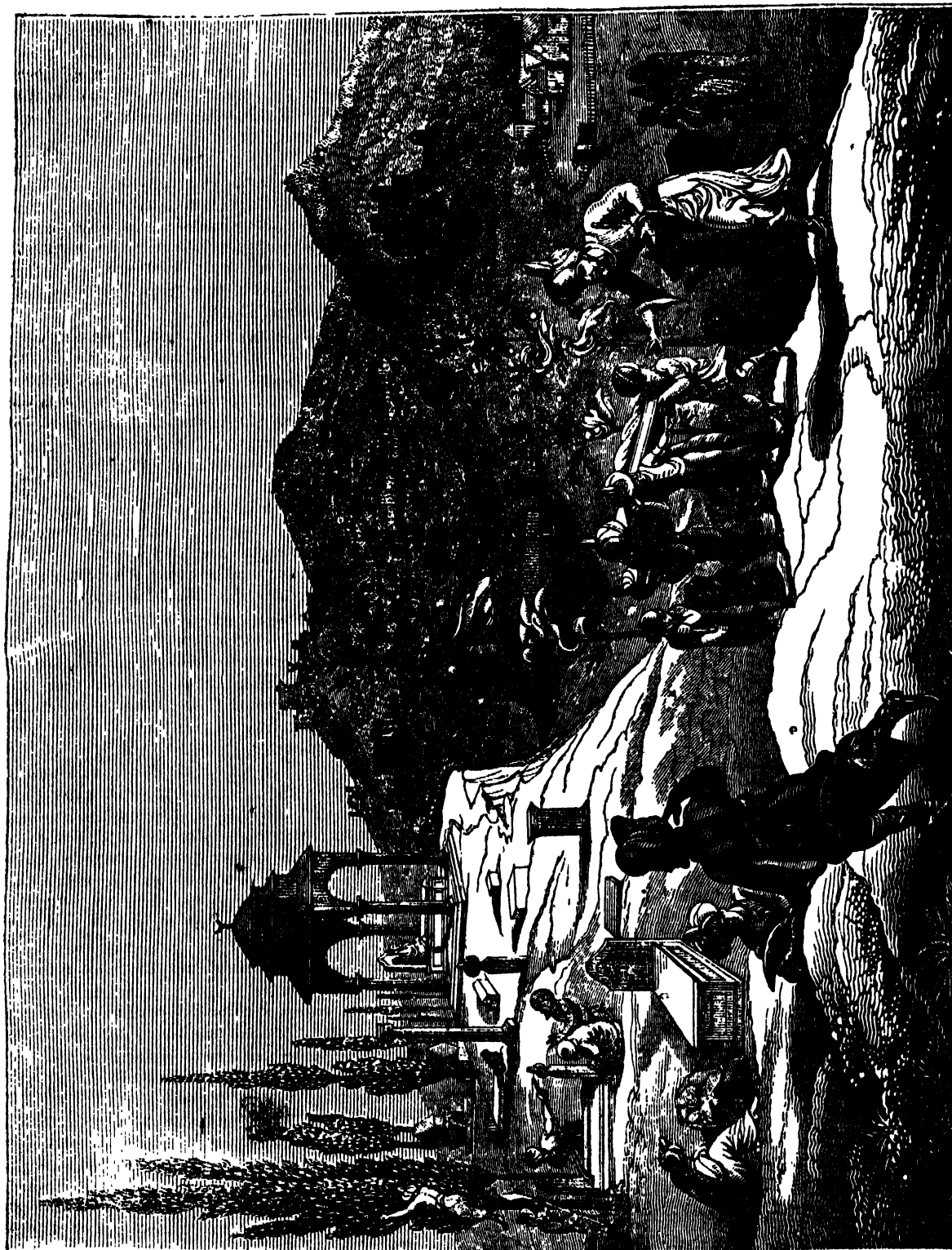
Spiders.—A correspondent supplies an omission in our paper on "*Spiders*," in No. 129 of the '*Penny Magazine*,' by furnishing from his own observations the following account of the process by which the insect disengages itself from its skin. The spider, in the first place, formed a kind of thick purse in one corner of the web, like that which is used to enclose the eggs. It then went to the centre of the web, and began to distend its body with violence for some minutes, until it split the skin the whole length of the back. When this was effected it began slowly to force its body through the aperture, and then gradually drew out its legs, one by one, till they were all extricated. The exuvium retained the entire form of the spider, but was perfectly transparent. The insect itself, after this great change,

remained quite gelatinous, and of a pale green colour, and it retreated to the purse or bag mentioned before, leaving the skin suspended in the web. The spider was sufficiently recovered to quit its shelter in about three days.

Style and Furniture of Houses in the Age of Queen Elizabeth.—Space and vastness seem to have made their whole ideas of grandeur. The apartments are lofty and enormous, and they knew not how to furnish them. Pictures, had they good ones, would have been lost in chambers of such height: tapestry, their chief moveable, was not commonly perfect enough to be really magnificent. Fretted ceilings, graceful mouldings of windows, and painted glass, the ornaments of the preceding age, were fallen into disuse. Immense windows, composed of bad glass, in diamond panes, cast an air of poverty over their most costly apartments. That at Hardwick Hall, still preserved as it was finished for the reception and imprisonment of the Queen of Scots, is a curious picture of that age and style. Nothing can exceed the expense in the bed of state, in the hangings in the same chamber, and of the coverings for the tables. The first is cloth of gold, cloth of silver, velvets of different colours, lace fringes, and embroidery. The hangings consist of figures, large as life, representing the virtues and vices, embroidered on grounds of white and black velvet. The cloths cast over the tables are embroidered and embossed with gold on velvet and damasks. The only moveables of any taste are the cabinets and tables themselves, carved in oak. The chimneys are wide enough for a hall or kitchen; and over the arras are friezes of many feet deep, with miserable reliefs in stucco, representing hunting. Here, and in all the great mansions of that age, is a gallery, remarkable only for its extent.—*Horace Walpole.*

Natives of Van Diemen's Land.—The following is the account, taken from a Van Diemen's Land newspaper, of the first effort that has been made to fix and hand down to posterity a true resemblance of this interesting people in their original state and costume: for, according to the local authorities we quote, the few random, diminutive attempts in water colour and rough engraving that have yet been tried can scarcely be considered as affording any true picture of this singular race. "We had the pleasure the other day in visiting Mr. Duterrau's collection of paintings in Campbell-street, to be agreeably surprised by remarkably striking portraits of some of our old sable acquaintances, the aborigines of this island. They are painted of the natural size in three-fourth lengths, having come to Mr. Duterrau and stood till he took their likeness with the greatest satisfaction. They are all drawn exactly in the native garb. Wooready, the native of Bruno Island, who has attended Mr. Robinson in all his expeditions, has his hair smeared in the usual way with grease and ochre, three rows of small shining univalve shells strung round his neck, and the jaw-bone of his deceased friend suspended on his breast. This relic of affection is carefully wrapped round with the small string which these interesting people make from the fibres of the large dag or juncus which grows in all parts of the island. They obtain it by passing the green flaps over fire until they have stripped off the more friable part of the green bark, and then the fibres which are strong are easily twisted into threads. A kangaroo skin, with the fur inside, is passed round him and fastened over the shoulder in the usual manner in the bush, before they obtained blankets from the whites, and his brawny athletic arm is stretched out to wield the spear. His wife Truganina, the very picture of good humour, stands beside him, with her head shaved according to custom by her husband with a sharp-edged flint. Besides these, Mr. Duterrau has in like manner painted a powerful likeness of the chief, Manalagana, and his wife, two most excellent, well-disposed people, who, with the others, have been of immense service to Mr. Robinson, and through him to the colony, in his several arduous and often dangerous expeditions to conciliate their countrymen; and are now, we learn, stationed about Campbell-town, doing their best endeavour to assist in ridding the country of the dreadful scourge of the flocks,—the ravenous wild-dogs. Great praise is due to Mr. Duterrau for his thus fixing on canvass which may commemorate and hand down to posterity for hundreds of years to come so close a resemblance in their original appearance and costume of a race now all but extinct.

THE CITIES OF SILENCE



[Turkish Burial-Ground and Funeral.]

By the above very expressive name the Turks distinguish the grounds in which the remains of the dead are deposited. The force of the term can only be well appreciated by the traveller in the East, who, in the neighbourhood of a great city, has frequently to traverse such a vast extent of ground marked by monumental stones on either hand before he can arrive at the abodes of living men, as to compel the most unthinking to feel "that the capital of the living, spite of its immense population, scarce counts a single breathing inhabitant for every ten silent inmates of the city of the dead." This was spoken of the public cemeteries of Constantinople, the largest city where the Moslem usages of

interment prevail, and where, therefore, the extent of the ground occupied by cemeteries, arising from the dislike of the Turks to re-open the ground where it is known that a body has been interred, appears with magnified effect. In mentioning generally the appearance presented by these cemeteries, it would be an injury to the reader to use other words than those of the eloquent author of 'Anastasius,' for the truth and excellence of whose pictures on this and other occasions we are enabled to vouch from personal observation of the scenes and objects described. "Already its fields of mouldering bodies and its gardens of blooming sepulchres stretch far away on every side, across the brow of

the hills, and at the bend of the valleys: already the avenues which cross each other at every step in this domain of death are so lengthened, that the weary stranger, from whatever point he comes, still finds before him many a dreary mile of road between marshalled tombs and mournful cypresses, ere he reaches his journey's seemingly receding end; and yet every year does this common patrimony of all the heirs of decay still exhibit a rapidly increasing size, a fresher and wider line of boundary, and a new belt of plantations growing up between new flower-beds of graves." A general description of the graves was given in the paper on 'Cemeteries;' but it remains to add, in explanation of the last expression, that the slabs, by which the graves are usually covered, are perforated with holes, through which the most beautiful flowers grow and shed their fragrance and their leaves around.

The principal cemetery of the Mohammedans is at Scutari, on the Asiatic side of the Bosphorus; for the Turks have a very strong impression that they shall ultimately be driven out of Europe by the Christians, and are not, therefore, willing that their bones should remain in a soil to be polluted by the rule of the Giaour. A little consideration would teach them, however, that if the Christian possessed Constantinople, the Moslem would not long be allowed to retain Scutari. The same impression operates differently on the Christians, inducing them to prefer the European side for their interments.

We were at first surprised to find the cypress-tree appropriated, among the Turks, to the sepulchral uses, in connexion with which it is always mentioned in the ancient and modern poetry of Europe. But, on consideration, we concluded that they merely retained a usage which they found existing in the Greek cities which they acquired in Asia and Europe. "This fine tree," says Sir John Cam Hobhouse, "has, with its gloomy green, long overshadowed the memorials of mortality; and its thick foliage, as well as the grateful odour of its wood, must serve to counteract the effects which would otherwise be produced, if graves, only a foot or two in depth, and containing corpses without coffins, were exposed to the burning summer sun." The number and extent of the cemeteries thus planted might be taken to characterize Constantinople, whose palaces, mosques, and minarets, seem embosomed in cypress woods.

As these trees, however, preclude an extensive view over the grounds in which the spectator is standing, the entire impression is not more forcible upon his mind than when, in lands more eastward, where the cypress does not grow, he perceives, at one view, the hills, the valley, and the plain, crowded to a vast extent with white monumental stones, in their general appearance not unlike the statues of Hermes, and which, in the obscurity of night, might lead the superstitious mind to fancy that the grave

"Had oped its ponderous and marble jaws"

to yield up the departed. Such cemeteries, neglected and overgrown, and frequently consisting of rude unsculptured stones of every dimension, and stuck in the ground in various directions, often occur at a great distance from any existing towns or villages; but indicate sites formerly occupied, and tell more strongly than any abstract conception could do, how exceedingly populous the grave is. The monotony of the "Fields of the Dead" of this sort is usually relieved by the small but neat square and open structures, surmounted by a dome, under which repose the ashes of the wealthy in places where cemeteries are not, as in Cairo, specially appropriated to their reception.

The attractive features which Mohammedan burial-grounds usually exhibit have been noticed by most tra-

vellers; and, separately from the saddening associations to which such spots give occasion, they are commonly the most pleasing promenades which Eastern cities offer. The trees, with which they are thickly planted in the western parts of Turkey, afford a grateful shade; and the cooing of the wild doves that build their nests among the branches, is a circumstance of additional attraction in a scene which is, upon the whole, not much solemnized by the grotesque and glaringly-coloured sepulchres of the Turks. For ourselves, we confess that, so far as solemnizing effects go, we have been much more moved by the forsaken and ruined cemetery to which we have just alluded, than even in the funeral woods of Constantinople, where the turbaned stones frequently disturbed our solemnity quite as much as the absurdities too often inscribed on the head-stones in an English church-yard.

Although the Turks have no notion of walking for exercise or pleasure, they have, perhaps, as much relish as any people for pleasant situations; and, whether from this cause or regard to the dead, they like to resort, in fine weather, to the cemeteries, and perform their devotions near the graves of those who have been taken from them. The women frequent the "Cities of Silence" very generally on Fridays, on which day they believe that their friends awaken to the consciousness of their former ties and relations. They may then be seen very affectingly grouped around the graves, from which they carefully remove weeds and other unseemly things, and which they as carefully decorate with garlands, myrtles, and flowers. It is remarkable that the Turkish females are just as reserved near the graves of the dead, as in the presence of living men. This, no doubt, arises from the idea, already stated, that the inmates of the graves around are sensible of their presence, and the practice is countenanced by the example of no less a person than the "Mother of the Faithful," of whom it is recorded in that curious work the 'Mischat ul Masabih,' a book of traditions concerning Mohammed, that "Aayeshah said, 'I was accustomed to go to the house where the Prophet and Abubekr were interred, without my upper garments; for I said to myself, nobody lies here but my husband, who is the messenger of God; and my father, who is Abubekr the Pure! But when Omar-ibn-al-Khattab died and was buried there, I never entered but with my body completely covered, on account of my modesty towards Omar, who was a stranger.'"

Our wood-cut, which represents part of a Turkish burial-ground with a funeral approaching, shows, in considerable variety, the different kinds of tombs and monuments which such places exhibit, and will convey a general idea of the funeral processions. The deceased is carried to the grave on a litter, or in an open barrow; branches are carried before and behind it, and his favourite horse is led after. The body has many bearers; for, as it passes through the streets, devout men run from their houses and assist in carrying it a little way, this being considered a very meritorious action. The corpse is always interred without a coffin, and in some parts of Turkey is wrapped up in cotton, while in others the best of the deceased person's ordinary dresses is employed.

Diffusion of Books.—If it be true that a wise man, like a good refiner, can gather gold out of the drossiest volume, and that a fool will be a fool with the best book,—yea, or without a book,—there is no reason that we should deprive a wise man of any advantage to his wisdom, while we seek to restrain from a fool that which, being restrained, will be no hindrance to his folly.—*Milton.*

The Value of a Good Book.—As good almost kill a man as kill a good book: who kills a man kills a reasonable creature—God's image; but he who destroys a good book kills reason itself,—kills the image of God, as it were, in the eye. Many a man lives a burden to the earth; but a good book is the precious life-blood of a master-spirit, embalmed and treasured up on purpose to a life beyond life. 'Tis true no age can restore a life whereof, perhaps, there is no great loss; the revolutions of ages do not often recover the loss of a rejected truth, for the want of which whole nations fare the worse.—*Milton. Speech for the Liberty of Unlicensed Printing.*

Theories.—The human mind feels restless and dissatisfied under the anxieties of ignorance. It longs for the repose of conviction; and to gain this repose it will often rather precipitate its conclusions than wait for the tardy lights of observation and experiment. There is such a thing, too, as the love of simplicity and system—a prejudice of the understanding which disposes it to include all the phenomena of nature under a few sweeping generalities—an indolence which loves to repose on the beauties of a theory, rather than encounter the fatiguing detail of its evidences—a painful reluctance to the admission of facts which, however weak, break in upon the majestic simplicity which we would fain ascribe to the laws and operations of the universe.—*Chalmers.*

Milton's View of the Mind of London.—Behold now this vast city; the shop of war hath not there more anvils and hammers working, to fashion out the plates and instruments of armed justice in defence of beleaguered truth, than there be pens and heads there, sitting by their studious lamps, musing, searching, revolving new notions and ideas wherewith to present us with their homage and fealty, the approaching reformation: others as fast reading, trying all things, assenting to the force of reason and conviction. What could a man require more from a nation so pliant and so prone to seek after knowledge? What wants there to such a towardly and pregnant soil, but wise and faithful labourers, to make a knowing people a nation of prophets, of sages, and of worthies? We reckon more than five months yet to harvest; there need not be five weeks had we but eyes to lift up;—the fields are white already. Where there is much desire to learn, there of necessity will be much arguing, much writing, many opinions; for opinion in good men is but knowledge in the making. A little generous prudence, a little forbearance of one another, and some grain of charity, might win all these diligences to join and unite in one general and brotherly search after truth. I doubt not, if some great and worthy stranger should come among us, wise to discern the mould and temper of a people, and how to govern it, observing the high hopes and aims, the diligent alacrity of our extended thoughts and reasonings, but that he would cry out, as Pyrrhus did, admiring the Roman docility and courage, "If such were my Epirots, I would not despair the greatest design that could be attempted to make a church or kingdom happy."—*Speech for the Liberty of Unlicensed Printing.*

Compulsory Service.—Mr. Morier relates that "an Armenian of Shiraz was unfortunately renowned for playing excellently on the *hamouncha**. The fame of his skill reached the king's ears, and he was immediately ordered up to court on the charge of being the best *hamouncha* player in his majesty's dominions. The poor man, who had a wife and family, and commercial relations at Shiraz, was, during our stay, detained at Tehran expressly to teach the king's women the art of playing on the *hamouncha*." The author adds in a note:—"This impress was by no means peculiar to Persia. Many instances might be given from our own history down to the reign of Elizabeth; but it is sufficient to refer to those connected with the subject of the text. Henry VI. pressed minstrels "for the king's solace;" Edward VI. thus supplied his choir; and in the reign of Elizabeth, under one of the commissioners to take up all singing children for the use of the Queen's chapel, Tusser, the author of the 'Five Hundred Points of Good Husbandry,' was impressed.

"Thence for my voice, I must not choice,
Away of force, like posting-horse,
For sundry men had placards then
Such child to take."

* A species of violin.

SELF-SUPPORTING DISPENSARIES.

How the poor may be best enabled to meet the contingency of sickness, is a question, the importance of which can hardly be too highly estimated; and we should, therefore, feel disposed to give our best attention to any plan which proposed to remedy the evils which seem to have been developed in the working of the ordinary modes by which relief is administered to the sick poor. But a plan which has been tried on a large scale, and appears to have worked well and beneficially, comes with still stronger claims to our attention. Such are the self-supporting dispensaries, the plan of which was first brought forward by Mr. Smith, a surgeon at Southam, in Warwickshire, at a public meeting held at that place in 1823. This meeting was attended by several members of "A Committee for conducting an Inquiry into the state of the Sick Poor," consisting of members of Parliament, clergymen, and medical and other gentlemen. These individuals did not consider themselves prepared to give a decided opinion concerning the probable operation of all the parts of the plan; but they determined to co-operate with Mr. Smith in the establishment at Southam of such a dispensary as was proposed, in order that the practicability of the proposal might be fairly tried. The plan of such establishments is open to local variations, but generally they may be thus described as now actually existing.

In the self-supporting dispensaries there are generally three classes of patients, though sometimes only two. The first, denominated the free class, or independent members, consists of those artisans or labourers who are able and willing to maintain themselves and their families by their own industry; but who, nevertheless, are unable to afford the charges of private medical attendance. Those of the working classes who are desirous of being admitted to the benefits of the charity on the terms of the free class, are required to present a certificate from two of the honorary subscribers, stating that they are persons proper to be included among the independent members. Sometimes the certificate of one honorary subscriber, or of two respectable neighbours, is considered sufficient, and the rules of the Coventry Dispensary seem only to require that a statement of name, age, residence, and occupation, should be left at the dispensary with a deposit of one month's subscription. The eligibility of the applicant then becomes a matter of consideration with the sub-committee; and in all cases as much facility is endeavoured to be given to the admission of members as can be made consistent with the desire to secure the benefits of the institution to the proper objects.

These free members are at all times, and for unlimited periods, entitled to such medical or surgical assistance as they may require, and to the privilege of being attended before the gratuitous patients on the terms of the following rule:—"Every free member above twelve years of age shall pay one penny, and under that age one halfpenny a week; except in a family consisting of more than two children, when one penny a week shall be considered sufficient for all under twelve years of age." The subscriptions of these free members form a fund, the balance of which, after deducting the cost of medicines, is annually divided among the medical gentlemen in sums varying with the extent of their services. The contributions of honorary subscribers form a distinct fund, from which all the expenses of the establishment are defrayed; and, according to its amount, grants are made from it to enable ladies' committees, at the recommendation of the surgeons, to furnish loans of linen, to provide nurses, and to administer cordials and broths to the sick members. This separation of funds seems to us a very valuable part of the system, as the members are thus assured that no part of their little subscriptions go to the support of an establishment

which they might consider expensive, but that the whole is directly appropriated to provide for them the best medical assistance that can be obtained; while, on the other hand, their independence is gratified by knowing that the fund from which their relief is more immediately drawn has been raised by themselves, and is not palpably assisted by the contributions of the rich and charitable.

The rules of these institutions provide that either a certain number of regularly-educated medical practitioners, resident in the district, shall be elected officers, or, without any limitation, that all the regularly-educated surgeons of the neighbourhood, who are willing, shall be attached to the establishment, in either case leaving to the free members the choice from the list of officers of the medical attendant they prefer. By this means, and by the consciousness of each member that he pays for the attendance and medicine he receives, the very desirable object is attained of bringing the relation between the practitioner and the patient to as near a point of resemblance as possible to that which obtains in private practice.

Besides the free members, these institutions extend the benefit of their assistance to two other classes of persons, both consisting of those to whom gratuitous relief is afforded. The first of these is called the "Charity Class," and consists of persons recommended, in the first instance, by the honorary subscribers; and who, after due investigation, have been found to be willing, but unable, from temporary sickness, losses, or inadequate wages, to pay for private medical assistance, or to subscribe to the dispensaries. With reference to this class, it is stated, in a pamphlet printed for private circulation, by Dr. J. P. Kay of Manchester, of which, together with other papers, we avail ourselves in preparing this article, that "many are drawn into this class from the influence of misdirected charities, that tend to make them rely on other resources than their own industry; and therefore, in the commencement of any measures of reform in our public charitable institutions, this class will, of course, be much greater than it will ultimately become." Yet it is gratifying to find that the claim for this mode of assistance is by no means extensive. Thus we find from the 'Report of the Dispensary of Wellsbourne in Warwickshire,' that of 1223 patients only two or three had applied for the Charity Ticket—"a circumstance," it is added, "strongly illustrative of the desire of the honest English labourer to be independent, when an opportunity is afforded to him of providing against sickness and necessity, by a small contribution from his earnings."

The third class of patients is composed of persons dependent on the parish, and for whose medical treatment it is usual for parishes to contract, on the lowest terms possible, with some surgeon. This system is stated to have been found very defective, if not pernicious, in its operation; and where these dispensaries have been established, the parishes have very generally transferred the medical care of sick paupers to them, purchasing this advantage by the annual payment of a certain sum for every hundred inhabitants.

The Committee, to which we referred at the commencement of our statement, conclude their 'Report,' which was published in 1827, with expressing a strong opinion in favour of the institutions, the leading principles of which we have stated, and which have been, more recently, favourably noticed in the 'Appendix to the Report' of the Poor-Law Commissioners. Many such dispensaries are now in active and useful operation in the midland counties. We are best informed concerning the "Coventry Benevolent" or Self-supporting

Dispensary;" and the third report, delivered in April last, enables us to make a few statements, which will show how extensively these institutions are already working. The receipts from free members, in the last year, amounted to 400*l.* 12*s.*; and the honorary fund to 254*l.* The patients attended in that year were 1668, of whom 515 were visited at their own houses; and the total number of patients attended during the two years and a half since the commencement of the institution is 5610.*

The various documents before us, some of which emanate from parties unconnected with such institutions, concur in stating the strong tendency of these dispensaries to prevent the increase of paupers. The first application for parish relief, on the part of the honest and industrious poor, most commonly arises from the occurrence of sickness in their families; and as, after the first application for such relief in any shape, the shame of solicitation is destroyed, and the pride of independence broken, it is certainly most desirable to place within the reach of the deserving poor that prompt and efficient medical aid during illness which would shorten the interruption given to profitable industry, and restore the labourer's family to health, and the labourer himself to his work, unembarrassed by debt, and undegraded by pauperism.

It is also not the least important feature in such institutions that they give to the free member the right of applying for advice in the earliest stage of sickness; whereas, in ordinary cases, the dread of a doctor's bill, the dislike to beg a charity ticket, and the greater dislike of an application to the parish, occasion such delay in the application for advice as to insure protracted illness, the permanent loss of health, and, consequently, of the means of subsistence, and even the loss of life itself.

We cannot better conclude the consideration of this subject than with the concluding sentences of Dr. Kay's pamphlet. "If we wish permanently to ameliorate the condition of the working classes, we must teach them to help themselves. We must show them that what others can do for them is utterly insignificant and worthless, compared with the good which may result from their own virtuous exertions. We must make it evident that in the exercise of moral restraint, and by industry, sobriety, a peaceful demeanour, an economical management of their resources, and a fore-sighted provision for the day of calamity, from which few are exempt, they may escape the misery into which imprudent marriages, insobriety, irregularity, turbulence, extravagance, and improvidence, plunge men gifted by nature with every quality necessary to procure happiness. It is desirable that we should be no longer instrumental in diminishing that noble self-reliance which has been the boast of the English peasantry, and in substituting for the generous pride of independence a sickly craving for sympathy. Let not our artisans be made lean and supple sycophants, cringing to obtain from external aid that which they have neither strength nor virtue to achieve for themselves; but let us rather encourage them in the exercise of those virtues which will teach them self-respect."

BIRMINGHAM TOWN-HALL.

THIS magnificent building, which has been erected by the public spirit of the inhabitants of Birmingham for municipal purposes, for public meetings, and for musical performances, is rapidly approaching completion.

and "benevolent institutions." These, in common speech, are synonymous terms; and, although these institutions are eminently benevolent, in the proper sense of the word, it does not seem very considerate to tell the free members that the relief for which they pay is a "charity." Even such little things deserve attention.

* We are much inclined to doubt whether it be prudent, or calculated to encourage that feeling of independence which these dispensaries desire to foster, to speak of them as "charities."

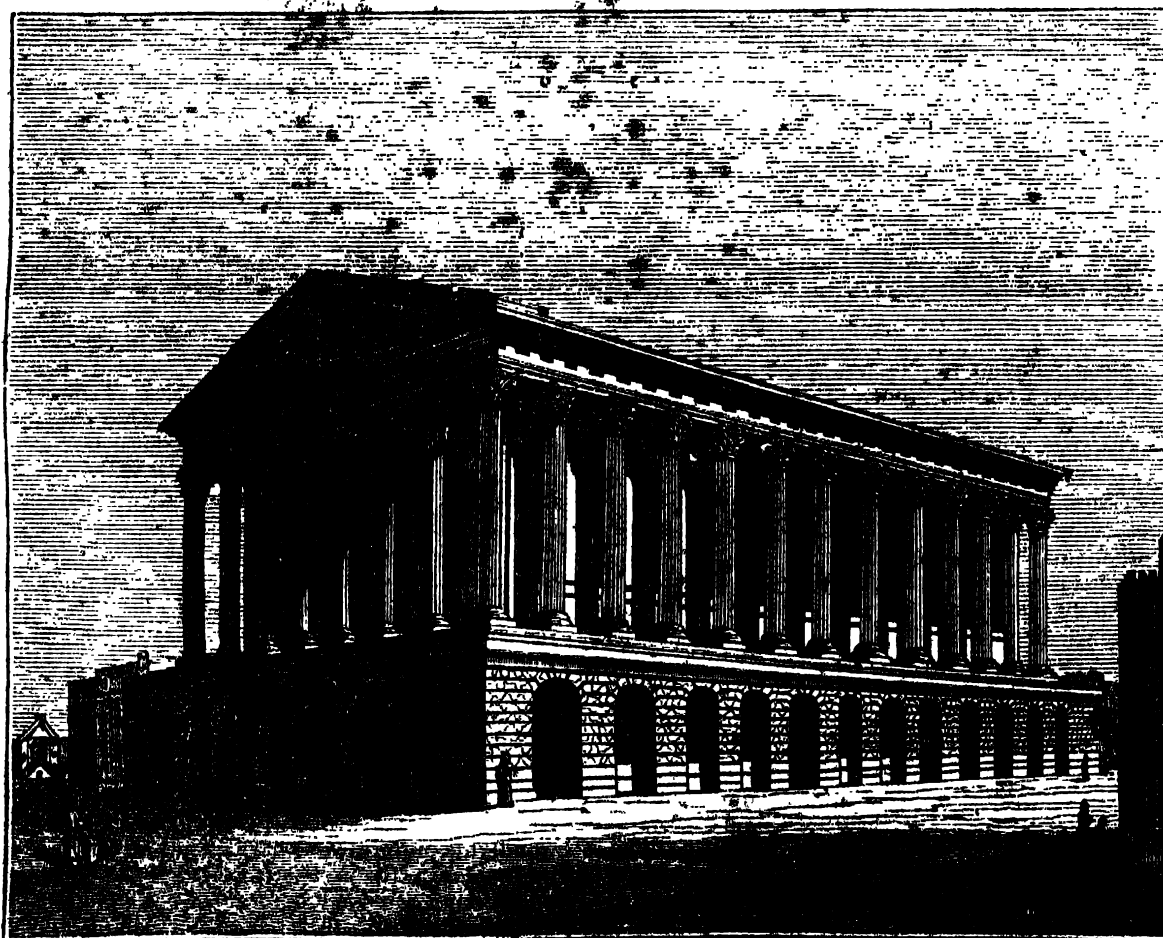
The triennal musical festival is fixed to be held in it during the next October. We may therefore, without impropriety, describe the general character of the structure.

Our wood-cut exhibits an accurate view of the elevation. The large proportions of the Hall, its commanding height, and its splendid series of Corinthian columns which run completely round upon a rustic arcade, render it not only the most imposing building in Birmingham, but one with which very few modern erections can compete.

The internal arrangement of this building exhibits a large saloon or hall, 140 feet in length, 65 feet wide clear of the walls, and 65 feet high from floor to ceiling, with corridors of communication running along on each side of it on its own level, and staircases leading to upper corridors to give access to galleries. The corridors are low, the two tiers being within the height of the basement externally. As the Hall is intended principally for musical entertainments, one end of it is occupied by a magnificent organ and surrounding orchestral arrangements. This organ is of enormous dimensions, and has cost 3000*l*. Two narrow galleries run along the sides of the Hall, and a large deep gallery occupies the other end; rooms for the accommodation of the performers who may be employed are formed at the upper end of the building and under the orchestra.

The building is lengthened externally to 160 feet by the projection of the arcaded pavement in front to Paradise Street, over the causeway. The height of the basement above the causeway is 28 feet,—the

columns resting upon its upper surface or platform are, with their entablature, 45 feet, and the pediment forming the frontispiece is 15 feet high,—making a total height of 83 feet from the causeway to the acroterium. The columnar ordinance employed is in imitation of the Roman foliated or Corinthian example of the temple of Jupiter Stator; the columns are fluted, and the entablature is greatly enriched, though not to the full and elaborate extent of the original. The structure is of brick, faced with Anglesea marble, of which latter material the columns and their accessories are composed. The bricks were made on the spot of the earth taken out of the foundation. The stones were cut and worked by machinery with steam power, the flutings were made by the same means, and by the application of an invention, it is understood, of one of the contractors. Another ingenious invention, consisting of a species of craning lever-beam on rollers, was applied for the purpose of hoisting the framed tie-beams and principals of the roof from the ground up to the walls. The time given for the completion of the edifice was eighteen months, and the total cost was to be 18,000*l*., though it is understood that the marble used in it has been supplied by the proprietor of the quarries free of cost, for the purpose of bringing the article into public repute. The design for the Birmingham Town-Hall was supplied by Messrs. Hanson and Welsh of Liverpool, who were also the contracting builders for carrying it into execution. It is much to be regretted that the enterprise of the contractors has left them considerable losers.



[Town-Hall of Birmingham.]

• The Office of the Society for the Diffusion of Useful Knowledge, is at 59, Lincolns Inn Fields.

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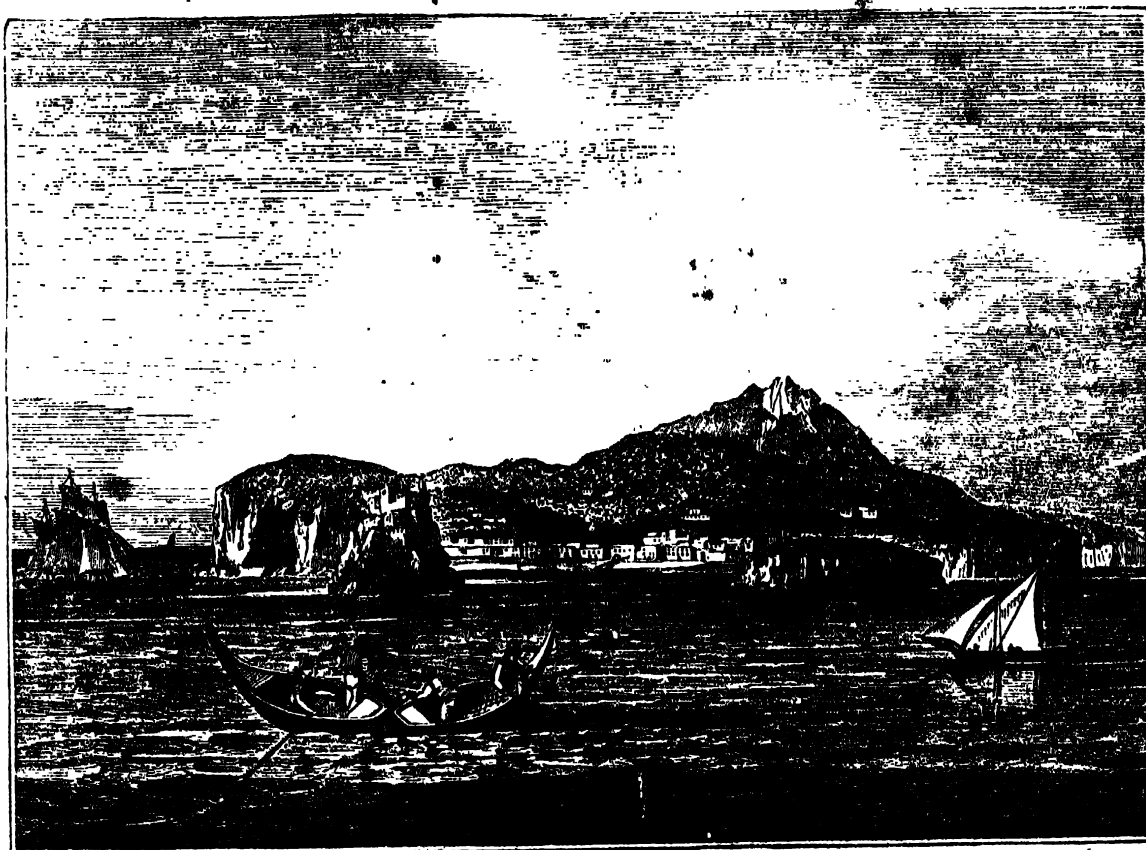
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143.]

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[JUNE 28, 1834.]

THE ISLAND OF ISCHIA.



[View of the Island of Ischia.]

THE beautiful Gulf of Naples, taken in its enlarged sense, extends from the promontory terminated by Cape Misenum to the Sorrento peninsula, ending in Cape Minerva, now called Della Campanella. The rugged, rocky island of Capri stands off Cape Minerva, at one side of the entrance into this magnificent basin; and the larger, loftier, and volcanic island of Ischia stands at the other side, off Cape Misenum.

The distance of Ischia from the city of Naples is not above twenty miles, and being only three or four miles from the attractions of Baia, Cuma, the Fusaro lake, &c., it is frequently visited by travellers. The salubrity of the air, the beauty of the country, the excellence of its mineral waters, its baths, its wine, fruit, and other produce, also frequently attract the Neapolitan gentry, who are not much given to travelling or investigating the wonders with which nature surrounds them. A small uninhabited rock, called Vivara, and the densely-peopled and pretty island of Procida, intervene between Ischia and Cape Misenum. From the southernmost point of Procida to the nearest point of Ischia is a distance somewhat less than two miles. From many points of view the two islands seem as one; the lofty mountains and the great cone of Ischia rising to the eye from the comparatively low lands of Procida as if from a base. It is curious to observe that Virgil, who must have known both islands well, calls Procida "high," whereas, in fact, Ischia is lofty, and Procida (as we have just said) comparatively low. It would be as reasonable to call the Jura ridge, in the immediate

neighbourhood of the towering Alps, lofty, or (to take a more familiar illustration) to speak of the height of the houses in St. Paul's Churchyard while the imposing elevation of the cathedral is before our eyes.

Few places show more plainly, or with more beauty and effect, their volcanic origin than the Island of Ischia. The shape of its mountains, the fissures and chasms in the mountains' sides, the deep ravines across the plains, the lava heaped upon lava, the tracts covered with *tufa* and *lapille*, grey ashes, and sulphur; the smoke, the pungent steam—the hot mineral waters that gush out in almost every direction—all these and other things denote volcanic action, and offer a magnificent scene of study to the geologist. But in these regions everything is volcanic. Besides Vesuvius, a dozen craters—some in repose for many centuries, and some that were in fearful activity not many generations back,—might be counted close at hand. There lie, in wonderful contiguity, the hollows of Agnano, Astroni, the Solfatara, the Avernus, and others, each of which in its day has poured forth smoke and flames, ashes, and liquid fire. A little farther off, the sea is dotted with the islands of Vendotenna, Ponza, Palmerola, and half a score of islets, which have all been raised above the waves by the action of internal fire. Still farther off, and to the south, Mount Stromboli rises from the bosom of the Mediterranean, and is in almost constant activity. If we extend the radii, taking Ischia as the centre, we should add an imposing list. The Lipari islands, Mount Etna, Mount Vultur, and many other

volcanos, extinct or occasionally in action, would be included within a comparatively small circumference. The picturesque forms and beauty, the luxuriance of soil, resulting from these terrific agents and the convulsions of nature, are most astonishing.

The most striking feature of Ischia is the mountain represented in our engraving, which may be said to crown the whole island. This mountain was anciently called Epopeus; its modern name among the islanders is Monte San Nicolo (St. Nicholas' Mount), but they sometimes call it Epomeo. A steep, rough road, in part over fields of black lava, and in part running along dangerous precipices, leads to the summit, which is between three and four thousand feet above the level of the sea, and commands one of the finest views to be met with in the Mediterranean. Nearly one-half of the southern coast of Italy is spread before the spectator;—in the rear of this admirably-varied line of coast and of promontories,—such as one sees in Claude's pictures,—the long, grey chain of the Apennines shows itself. In no part of the world is noble scenery enriched with such classic or with so many associations. This is a concentrating point for ancient poetry and history. Sitting on the lofty cone of Epopeus, and hearing the names of all the places visible from that spot mentioned, the informed traveller is made to go, almost unconsciously, through the whole course of his classical studies. Not only is there no rock without a name, but no name without a fame of some sort or other—ancient or modern, consecrated by Grecian, Roman, or Italian genius. The scenery of half of Homer's 'Odyssey'—of half of Virgil's 'Æneid'—is here. The birth-place of Tasso is close at hand. The Circean promontory, the Syren rocks, the cape where Æneas buried his trumpeter, whose name was conferred for ever on that cape*, seem almost within arm's length of the traveller. It would require pages merely to name the spots thus illustrated that are within sight. Among the associations in the more sober walk of history we will mention those connected with a sight of the solitary shrine at Patria, where the great Scipio died, complaining of his country's ingratitude—of the marsh of Minturnum, where Marius was found hidden, but whence he escaped to complete the strange drama of his life—of the melancholy hill-side near Gaeta, where the fugitive Cicero was overtaken and slain,—of the small island of Misida, where Brutus parted from his noble wife; and (to omit many others) of Cape Misenum, already alluded to, which, after witnessing many changes, became the scene of the captivity and death of Augustulus, the last Roman Emperor of the West.

But we must descend from these lofty contemplations, and from the summit of Mount Epopeus. Not far from this summit, which is formed of greyish lava, a crater is still very well defined, though it should appear that the eruptions on record did not proceed from that mouth, but from various openings much lower down the mountain. The last great eruption occurred as far back as the year 1302. It was terrific! The shaking and crumbling away of the mountain overthrew or buried some of the towns and villages, and others of them were consumed and their sites covered by the torrents of lava that poured down the mountain's sides, and, in some instances, flowed far out to sea, forming, as they cooled, long ridges of coal-black, ragged rocks, which, for five hundred years, have resisted all the violence of the waves. The north end of the island presents a sad but sublime picture. For a great length and breadth the land is covered with the roughest and darkest lava, while out at sea, with the least breath of wind, the water roars and foams among the black lava ridges and islets and rocks formed by many successive explosions.

* Now always called "Capo Miseno."

Not far from these enormous lava beds stands Foria, the largest and most populous town in the island, though not the capital. This town is neatly built, and the clean, white walls of its houses contrast singularly with the black heaps of volcanic matter scattered all about it. Like each of the towns, and indeed nearly every village on the island, Foria contains places of worship built in a capricious but not disagreeable style of architecture. It is principally occupied by that portion of the islanders that get their living by fishing and maritime pursuits.

The capital, which is also called Ischia, stands nearly at the other end of the island, in a pretty little bay opposite to the islet of Vivara. The bay and town are, or might be, defended by an old castle, which, in the most picturesque manner imaginable, is perched on the top of a high, detached rock, which is joined to the island of Ischia by a short, narrow isthmus of sand. It is at this point that travellers, who generally come by way of Brucida, approach and land; and a striking point it is. Casamiccio, another town, and now the most frequented by strangers, as conveniences for taking mineral and volcanic mud-baths have been amply provided, stands on a spur of Mount St. Michael, and is pleasantly ventilated and shaded by trees of fine growth. Detached casini, or villas, commanding the most beautiful views, can be procured at a cheap rate in various parts of the island, which contains still another town called Panza, and a number of well-peopled villages. The circumference of Ischia is about twenty English miles; and the whole population is about 25,000.

Though much of this curious island is occupied by rocks, lava, and uncovered tufo, or rent into chasms, and long, deep fissures, still much remains for the purposes of cultivation; and, where these tracts occur, nothing can well be fancied more productive or more pleasing to the eye. Extensive vineyards that produce an excellent white wine (a very important article of export), orchards and gardens furnishing abundance of oranges, citrons, melons, and almost every European variety of fruit and vegetables, fields of Indian corn, or other grain, and of cotton, groves of chestnut-trees and ilices, hedge-rows formed of aloes, myrtle, and other sweet-smelling shrubs, delightfully variegate the surface of the island, and now tend to hide, and now suddenly reveal, white villages and scattered cottages. There is another feature too characteristic of Ischia to be passed over in silence:—the chasms, and steep, narrow dells that occur so frequently are, for the most part, shaded by a compact and vigorous growth of trees;—the stranger, who may suffer from the intense heat of summer* (the season when the baths are most efficacious), may always retreat to one of these, and find, at any hour of the hottest day, and when the glare of light is painful in the rest of the island, shade and a refreshing coolness. Since the peace, Ischia has been gradually rising in reputation as a place of resort for the sick. The diseases in which the use of the waters in drinking or bathing, and of the mud-baths, prove most beneficial, are rheumatism under most of its varieties, cutaneous disorders, &c. The Neapolitan government have an establishment on the island, to which considerable numbers of soldiers and sailors in the royal service are sent every year for the recovery of their health. Many poor Neapolitans are also sent annually, and supported during their stay by associations of charitable individuals.

* Eight years ago, when the writer of this short notice was at Ischia, nearly all the comfortable apartments and neat villas were let to foreigners, and some new ones were building. Like some of the baths on the Rhine, though not in such numbers, the baths of Ischia could then boast specimens of most of the great nations,—

there were French, Germans, Russians, Poles, Hungarians, Englishmen, Americans, &c.

The inhabitants of the island, and particularly the mariners and the vine-dressers, who form the two more numerous classes, are a gay, good-natured, inoffensive people, requiring nothing but an improved education to make them very estimable. The women of the peasantry are remarkable for the beauty of their persons and the grace of their costume, which is never varied, but is the same for all of them. Both their countenance and their dress have a striking affinity to the features and costume of the Greeks. But this resemblance is still more remarkable in the neighbouring island of Procida, where it is rare to meet with a young woman that is not handsome, and gracefully or picturesquely attired.

The beautiful green and mottled-green lavas that are so extensively turned and made into snuff-boxes, ornaments, paper-pressers, &c. at Naples, and thence exported to England and other countries, do not come from Mount Vesuvius, but from the island of Ischia. The lavas of Vesuvius that are capable of being manufactured are blackish, reddish spotted with grey, and grey, but never green. Ischia gives the greens and, in addition, some other hues, as well as all the colours produced by Vesuvius. Some of the green lavas of Ischia are transparent and prettily variegated.

The beautiful and accomplished Vittoria Colonna spent several years in solitude on this island after the death of her husband, the Marquis of Pescara. The villa where she resided and wrote several of her best poems is still preserved. The original drawing, from which our engraving is taken, was made by a Neapolitan artist on the spot.

SLAVERY IN THE EAST.

We had lately occasion to describe the condition of a slave in the East as highly favourable; and in proceeding to substantiate this position by more detailed statements than our limits then allowed us to furnish, the remark cannot be well avoided, that, in proportion to the political freedom of a nation, its slaves have been unfavourably situated. It is strange, and might on a cursory view seem unaccountable, that the Turk and the Persian should more distinctly perceive, and more cheerfully recognise, in his slave, the rights which each member of the human family possesses, than the Spaniard or the Portuguese; and that these should do the same more readily than the English, the Dutch, and the North Americans. In the East, and in the Spanish colonies, a mode is legalized in which the slave is enabled to accumulate property to purchase his own freedom: but in the United States the law does not recognise in the slave the right to accumulate property for the purpose; and in some of our own West India colonies the master formerly incurred a fine of 100*l.* currency by the manumission of a slave. Again, in the East, "born slaves," or those who were enslaved in early age, are quite as well instructed as the mass of the people, and perhaps better; and latterly, in our own colonies, the law has encouraged the instruction of the slaves in reading, writing, and the principles of religion. But in many of the slave-holding states of North America very severe penalties are affixed to the offence of teaching a slave to read or write, and we have some rather recent instances of their being enforced with considerable rigour. We rejoice exceedingly in the measures which have recently been taken for the abolition of negro slavery in the British dominions. As the condition of our colonial slaves has been more fully laid before the public than perhaps that of any other class of men whatever, we shall presume that our readers are so well acquainted

with it as to render it needless for us to institute a detailed comparison or contrast between it and the forms of slavery which we now propose to exhibit. We say *forms*, because on consideration we feel that it will be within the limits of our design to preface an account of slavery under the Moslem by a brief statement of the most favourable form in which it has appeared in a Christian country. This was under one of the most despotic of governments, that of Brazil a quarter of a century since, when its circumstances were considerably different from what they are now. We are not prepared to show to what extent, if any, the condition of the slave has been modified by the alteration, but we proceed to say what it was. Besides Sundays, the calendar gave the slave thirty-five holidays in the course of the year; and the law compelled the master to manumit him for the price at which he was originally purchased, or at his present value, if greater than the prime cost. This law was sometimes evaded indeed; but general opinion was decidedly in its favour, and the clergy employed their great influence in giving effect to its provisions. The law in itself, as well as an equally favourable law in the then Spanish colonies, might be set at nought; but, as it was necessary to respect public opinion, it seldom happened that a slave who had obtained sufficient money for the purpose found much difficulty in purchasing his freedom. A woman who had reared ten children was entitled to her freedom: but this law was more easily evaded than the other; or, more probably, as the children remained slaves, the tenderness of a mother's heart seldom allowed her to separate her lot from theirs, by urging her claim to freedom. Many slaves were manumitted by the wills of their deceased masters, and sometimes wealthy persons indulged in this act of charity during their lives. More frequently than by either of those methods, the entail of slavery was cut off by another law, which provided that when a negro child was presented at the baptismal font, the master was bound to accept five pounds, if offered, as the price of its freedom. By these various means considerable numbers became free; and to the infinite honour of the Brazilians, above the English and above the Americans, be it spoken, that, when once the barrier of slavery was removed, little difference was made by law between the different castes, and less by public opinion; so that there was no country which presented so few obstacles to that amalgamation between the white and the coloured person by which prosperity and safety are best secured in countries so circumstanced.

In Mohammedan countries the most unfavourable portion of the slave's existence, as such, is while in the hands of the Geclab or slave-merchant, and until he is sold to one who designs to keep him permanently. In the first instance, if negroes, they suffer much during the journey from the place of purchase to that of sale. For instance, it has been known that in the journey from Sennaar and Darfoor to the slave-mart at Cairo, or even the intermediate one at Siout, the loss in a slave-caravan, of men, women, camels, and horses, amounted to not less than 4000*l.* The circumstances of the mart itself scarcely appear to be more favourable aspect than those of the journey; whether we regard the miserable beings, as in the market at Cairo, crowded together in inclosures like the sheep-pens in Smithfield-market, amidst the abominable stench and uncleanness which result from their confinement;—whether, as in another great mart at Muscat, we perceive the dealer walking to and fro with a stick in his hand between two lots of ill-clothed boys and girls whom he is offering for sale, proclaiming aloud, as he passes, the price fixed on each; or else leading his strings of slaves through the narrow and dirty streets, and "calling out their prices as he exhibits them in this ambulatory

auktion: 'number one—handsome young man, five hundred piastres; number two—a little older, but very healthy and strong, four hundred piastres;' and so on till he has described the whole string of miserable beings*," or whether, finally, the white slaves, male or female, are more privately exhibited, in good condition and gay attire, while the dealer, in the true jockey style, expatiates on their good qualities or accomplishments, which they are required to exhibit.

The slaves thus variously exhibited usually appear quite indifferent to the process, or only show an anxiety to be sold, from knowing that, as slaves finally purchased, their condition will be much ameliorated. The slave in eastern countries, after he is trained to service, attains the condition of a favoured domestic. Except at a few sea-ports, he is very rarely put to hard labour: there are no fields in Mohammedan Asia tilled by slaves; no manufactories in which they must toil; their occupations are wholly of a domestic nature, and good behaviour is rewarded with kindness and confidence, which raises them in the community to which they belong. A slave, if of competent ability, is early employed as an agent in traffic, and intrusted with his master's property to a considerable amount.

The word "Slave" is nowhere, in Mohammedan countries, a term of opprobrium, nor does it even convey the idea of a degraded condition. The white as well as the black slaves usually marry, and their children, who are termed "House-born," become, in a manner, part of the master's family; and the former not unfrequently lose, by a marriage in the family of their master, or some other equally respectable connexion, all trace of their origin. Under such a mode of treatment, the house-born, and often indeed the purchased slaves of the Mohammedans, are found to interest themselves strongly in the welfare of their masters, and have been known to lay down their lives in their defence. They are in general perfectly trustworthy, and instances are not few in which they have been left sole heirs of the property their care has helped to accumulate. It is not at all unusual among the Mohammedans to grant small pieces of land to a slave, or teach him a profession, that he may, through industry and frugality, attain the means of paying for his freedom, at the same time that he acquires habits which render him worthy of it. Mohammedans are also encouraged to manumit their slaves by a law which gives them a title to any property of which the person to whom they have granted freedom may die possessed, in default of natural heirs.

The white slaves, who, in Turkey and Persia, are chiefly Georgians, frequently rise to the highest offices in the state. Many such have been grand viziers and pashas in Turkey. Until a recent period, a body of such men, under the name of Mamelukes, were dominant in Egypt. The pashalic of Bagdad was, until about three years since, governed by a similar body, and none but one who had been originally a Georgian slave could be pasha. A knowledge of these facts, and of the usually kind treatment which the slaves of Mohammedans receive, disposes Georgian parents to sell their own children to them; and this is one cause why that most beautiful and fertile of countries, Georgia, is in so miserable a condition. How little slavery is dreaded is also shown by the fact that even Mohammedan parents or relatives are, in cases of emergency, ready enough to offer their children for sale. During the famine which, a few years since, drove the people of Mosul to Bagdad, one could not pass the streets without being annoyed by the solicitations of parents to purchase their boys and girls for the merest trifle; and even in Koordistan, when no constraining motive ap-

peared to exist, we have been sounded as to our willingness to purchase younger members of the family. Europeans in the East are scarcely considered amenable to any general rules, but Christians generally are not allowed to possess any other than negro slaves.

Having stated at the outset the superior advantages which the law affords to the slave in absolute governments, it becomes an interesting inquiry to ascertain whence this difference arises; for certainly we have no right to conclude that the Brazilian or the Turk is naturally a more humane character than the Englishman or the North American. Several causes may be assigned; none perhaps singly satisfactory, but sufficient, unitedly, to diminish our surprise.

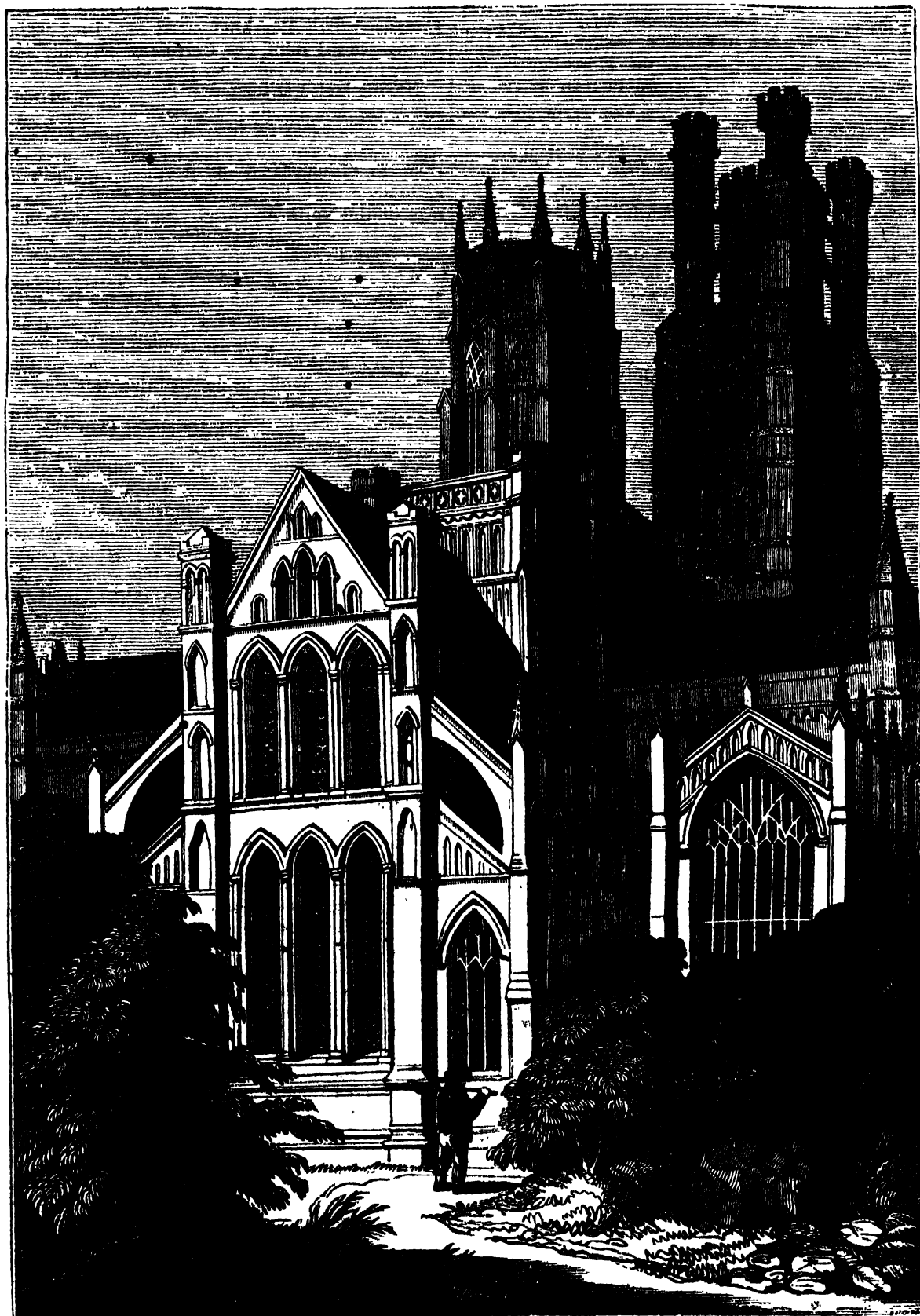
With regard to the mild aspect of slavery among the Moslems, it may be considered that the slaves in the East are not Africans so exclusively or so generally as to connect in the master's mind the misfortune of slavery with the guilt of "a skin not coloured like his own." It can hardly be doubted that this simple circumstance has had considerable influence in procuring for slaves generally better treatment than they might have obtained if uniformly negroes; and we are fully persuaded that if the single circumstance of colour had not been against the negro, he would long since have ceased to be a slave in the countries ruled by civilized men. Our general conduct is more usually influenced by our feelings and instincts than by our deliberate convictions; and it is possible that one who would cheerfully, and without hesitation, respond in the affirmative to the negro appeal,—“Am I not a man and a brother?”—would yet, in his every-day feelings, regard the ebony hue, the flat nose, the thick lip, and the woolly hair, as the characteristics of a distinct and inferior race. These circumstances certainly do make a distinction; and unfortunately it is too much the habit of all men, whether white, black, brown, or red, to consider all others their inferiors in those circumstances in which they differ from themselves.

The greater mildness of the slave-laws under despotic governments may perhaps be accounted for by the consideration that, in such states, the government is a party distinct from both the master and the slave, and is likely to act with more even-handed justice than the masters themselves would perhaps exhibit when furnished with those legislative influences which they possess in democratic states. On the other hand, it may be questioned whether the mild codes of slave-law in South America had much favourable influence on the condition of the actual slave. The government and the master regarded the slave differently; and the former, in wide and thinly-peopled countries, could not always oblige the master to carry its own kind intentions into effect. Thus the condition of the slave was not upon the whole perhaps better than in the English colonies and in the United States, where the law is more severe. This severity of the slave-code among themselves the North Americans account for by saying that, as the executive is intrusted with comparatively but little power, it is more necessary for them to provide for their safety by severe laws and rigid precautions than in monarchical states, in which the executive has usually a large military force at its disposal.

Manner of Clearing Chestnuts from the Husk in Savoy.
—In this beautiful part of the king of Sardinia's dominions they have the following manner of cleaning chestnuts from the husk:—climbing the lofty trees, they beat down the chestnuts with a long stick until the branches are entirely bare; they then collect all those that have not opened by the fall, and, piling them up in heaps, put a slight layer of earth over all, and leave them for a fortnight or three weeks, according to the state in which they were when they were covered. The earth is then removed, and the fruit beaten with sticks until the husks fall off.

* See 'Sketches of Persia,' from which work, and Colonel Johnson's 'Journey from India to England,' the substance of the two paragraphs immediately following is chiefly drawn.

CATHEDRAL OF ELY.



[North-West View of Ely Cathedral.]

THE above is a view of the cathedral of Ely as seen from the north-west. The form of this fine old church is the usual one of a cross, of which the longest limb, extending from north to south, is of the length of 535 feet, and the shorter, or transept, 190. Over the intersection of the two rises an elegant lantern tower of an octagonal shape to the height of 170 feet. Another still loftier tower crowns the western termination

of the building. It is a massive square, as may be seen from the engraving, surmounted by four hexagonal turrets rising from the four angles. Formerly this tower was terminated by a pointed spire, which made the height of the whole 270 feet. It is still a height of 215 feet from the ground to the summit of the turrets.

The west front, on which so much embellishment has been bestowed in most other cathedrals, derives its

imposing effect almost entirely from this great tower. It is flanked on the south side by a handsome structure, terminating in two battlemented turrets; and the lower part of another building of the same form, which probably had never been completed, is also attached to it on the north. The entrance into the nave is under the centre of the tower, the great door opening into an elegant and capacious vestibule. The view from the floor upwards through the tower is very striking.

The high and insulated tract of ground forming what is called the Isle of Ely, and especially the spot on which the city of that name stands, dates its reputation for sanctity from a period not long subsequent to the introduction of Christianity into Saxon Britain. A convent is said to have been built here about the year 673 by Ethelreda, a daughter of one of the kings of East Anglia, and a famous saint of those days. It is supposed that remains of the sacred edifices then erected still exist in some of the prebendal houses in the neighbourhood of the present cathedral. It was not till the year 1109 that the bishopric of Ely was established; but the present church, which was then converted into a cathedral, or rather the original building of which the present church is an extension, had probably been founded some time before that event. Little, however, if any thing, beyond perhaps a portion of the foundation of the ancient abbey-church, remains in the present building. The oldest part of the cathedral is the transept, which appears to be of the early part of the twelfth century. The rest has been the work of successive ages. The nave is ascertained to have been finished some time before the year 1174. The character of the architecture in this part of the church is nearly the same as in the transept. In both, the arches are not pointed but circular, the pillars are remarkable for their solidity and strength, and the whole wears the heavy features of the early Norman style.

Between 1174 and 1189 the great western tower was erected by Bishop Rydel. Its massive proportions still indicate the prevalence of the old idea of firmness and breadth as the principles of architectural effect; but the lighter and more ornamental character of the upper part of it, composed of successive tiers of small columns, and freely admitting the light through numerous windows, shows the change that was even then rapidly coming over the art. The elegant vestibule projecting from the line of the front, and formerly known by the name of the Galilee, was added about the close of the same century by Bishop Eustachius.

The part of the church to the east of the transept was begun by Bishop Hugh Northwold about 1234, and finished in 1250. During this interval also the present central tower was erected by the sub-prior of the convent, Alan de Walsingham, in the room of a former square-shaped tower, which had fallen on the 12th of February, 1622. The three most westerly arches of the nave had also been thrown down by this accident; and they too were restored by the liberality of the sub-prior. His expenditure upon the whole work was 2406*l.* 4*s.* 11*d.* The part of the cathedral immediately to the east of the central tower, which was originally called the Presbytery, is now fitted up as the choir; but this is an alteration which was only made about the middle of the last century. The choir was formerly immediately under the tower.

The interior of Ely Cathedral is very magnificent. The vaulted roof of the nave is sixty feet from the floor, and now that the Presbytery, or east end of the church, by being converted into the choir, has been added to the vista from the west end, an extent of prospect is produced corresponding to this altitude. Much of the tracery and other sculpture on the windows and pillars is also exceedingly rich and beautiful. In the great window of the east end of the church there is a painting

of St. Peter; and the delivery of the same apostle from prison by the angel is the subject of an old Italian painting, which has been considered to have much merit, over the altar. Various tombs and monumental chapels adorn different parts of the church; among the rest the chapel of Bishop Alcock, who died in 1500, at the east end of the north transept, and that of Bishop West, who died in 1530, in the south transept. Both these structures, the latter especially, are in the most rich and fanciful style of Gothic ornamental work. But they have suffered greatly, as well as all the other old monuments, from neglect and ill usage. Among the tombs, one of the most interesting is that of John Tiptoft, the famous Earl of Worcester, who was executed on Tower Hill, on the 18th of October, 1470, and of whom it has been said that "the axe then did at one blow cut off more learning than was left in the heads of all the surviving nobility." This light of a dark time was three times married, and he is here represented accompanied by two of his wives.

CIGAR MANUFACTORY IN MANILLA.

THE royal cigar manufactory is situated at Binondo (in the suburbs of Manilla), and near the church of the same name. We first entered by a stone passage, close to which were the storehouses for the leaf-tobacco; from this we passed into a narrow lane, walled at one end, and having at the other a small lodge and gate, through which persons employed in the manufacture took their departure, having previously undergone a search in the lodge by persons appointed for the purpose, to prevent smuggling. On entering this lane, the heavy stone building of the manufactory was before us, and over the entrance-door were the royal arms of Spain. On entering, and ascending a staircase, we came to the "receiving-hall for cigars," where, on bamboo platforms, were seen the bundles of cigars ready for sale. From this hall we passed into a long room, in which the powerful smell of tobacco, and an incessant clattering of stones, informed us we were in the midst of the manufacturers. In this room a great number of women were employed, and the whole number of that sex, of all ages, engaged in the manufactory, was stated to be four thousand. The women were seated at a low table, and employed in rolling the leaf-tobacco into cigars, which is effected in the following manner:—the leaf is spread on the table, moistened with a little water, and then pasted over; after this it is beaten quite smooth with a small round stone, another leaf is then joined to it, and, after undergoing the same process, forms the wrapper of the cigar; the small pieces of tobacco (usually the cuttings of the ends of the cigars, when cut to the requisite lengths) are then placed inside, and being rolled up, the cigar is so far completed. They are then tied into bundles, each bundle containing a certain number, and passed into the hands of other women, who cut a small piece from each end to make them of the requisite length, when they are ready for sale. The quantity of cigars manufactured must be enormous, the principal portion of which is consumed in Manilla and the neighbouring provinces. The quantity exported, a mercantile gentleman informed me, did not amount to more than the value of 100,000 dollars annually. The revenue derived by the government from this monopoly is stated to amount to 500,000 dollars per annum. Underneath the rooms in which the women are employed, one thousand male natives are engaged in the manufacture of small paper cigars, named *cigarillos*. They sit at tables, having enclosed before them a quantity of shopped tobacco, the paper (ready cut in the requisite sizes) is at hand for the envelopes; the necessary quantity of tobacco is then taken in one of the pieces of paper and rolled up, in which action the two thumbs are principally employed, and they are made with great rapidity. The *cigarillos* are tied up in bundles of thirty each, which are placed in an envelope on which the royal arms are stamped. The consumption of this kind is local: when this is considered, and that each bundle contains thirty, and that one thousand men are constantly employed in making them, and four thousand women engaged in the manufacture of the cigars, some idea may be formed of the prodigious consumption of tobacco in the Philippine Islands alone.—*Asiatic Journal*.

Personal Character of Books.—Some books have a sort of personal character. We are attached to the work for the sake of the author. Thus we read Walton's 'Angler' as we would converse with an agreeable old man, not so much for what he says, as for his manner of saying it, and the pleasure he takes in the subject.—*Characteristics*, 1823.

The Vineyards of Savoy.—In most other countries where the vine is cultivated, the plant is not allowed to exceed four or five feet in height. In Savoy, however, they have quite a different method. They fell large trees, and leaving them on the ground until the verdure is entirely departed, strip them of the bark and smaller branches. They then raise and fix them firmly in the ground, and planting the vines at their foot, leave them to grow to whatever elevation they please; so that they are often seen rising to the height of twenty-five or even thirty feet. In the vine season, when covered with clustering bunches of grapes, they make a beautiful appearance.

THE ALPINE MARMOT.

THIS interesting little animal belongs to the order *Rodentia* and the genus *Arctomys*, and is the species with which we are best acquainted. It is classed among rats by Linneus, and in its appearance is compared by some writers to a diminutive bear or badger; but the disposition of its teeth, and its internal conformation, evince its closer affinity to the squirrel family.

The animal, when full grown, attains the size of a rabbit, measures about fifteen inches from the nose to the root of the tail, and two feet including the tail,—and generally weighs about nine pounds. The characteristics of the genus to which it belongs are thus stated:—There are two incisors in each jaw, and ten grinders in the upper, and eight in the lower jaw; four toes, with a tubercle in place of a thumb on the fore-feet, and five toes on the hinder. The genus possesses no cheek pouches, like some others belonging to the same family; and the individual species we are considering has a thick and short body, short legs, and very short round ears; the tail differs materially from that of the squirrel, being much shorter in proportion, and straight. The head is large and thick,—flattened at the top; the nose blunt and thick, and is often carried erect when the animal sits. The muzzle is furnished with whiskers, and there are long hairs also above and below each eye. The upper part of the body may be generally described as of a rather light grey colour, and the lower part of a light fawn colour. The grey darkens towards the head and tail, and the latter becomes nearly black towards the extremity. The ears are of a lighter grey than the surrounding parts. The toes of the hind feet are whitish, and those of the fore feet black. The circuit of the muzzle is white. The fur of the animal is generally long and soft. The hairs of the tail are thicker and coarser than those of other parts, while below the tail, and inside the limbs, the hair is very short, leaving those parts almost naked.

These marmots inhabit the higher parts of the Alps and Pyrenees, just below the regions of perpetual snow, and are also found in some parts of Asia. They avoid moist places, and prefer small and narrow valleys, exposed to the south, south-east, or south-west. In such places they construct their domiciles under the earth, each family living in its distinct habitation. The entrance is usually placed under some stony mass. In forming their dwellings they scoop out the earth with great dexterity and expedition. By throwing away a small part and beating the remainder close, they form a very compact and solid passage. Their excavations may be compared to the letter Y, the proper dwelling-place, or room, being at the point where the limbs branch off. The extreme length of the entire excavation is about twenty feet

when the branches are formed, and seldom less than eight feet when they are not. The first passage, which is barely wide enough to admit the animal, is about six feet in length; and the cell in which it terminates is round or oval, arched at top, and in its form may be compared to an oven. It is from three to seven feet in diameter, being larger or smaller according to the number of the family, and very comfortably lined with hay and moss, of which a good stock is laid in during the summer. The use of the passages which branch off from this chamber is rather a matter of conjecture. It is commonly supposed that one of these passages is used for the expulsion of their excrements, that the chamber may not be defiled; and as the marmot is a very cleanly animal, this is not unlikely. In the other passage there is always found a peculiar cavity, from which it is supposed they take the earth with which, together with stones and hay, they build up the entrance to their burrow on the approach of winter. The precise position in the burrow which the cell occupies is variously stated by different naturalists. Some place it at the extremity of one of the branches, while others, among whom are MM. Geoffroy St. Hilaire and F. Cuvier, in their '*Histoire Naturelle des Mammifères*,' give it the situation which we have assigned to it; but these gentlemen also assert that the branches are only occasionally met with. The passages are always conducted in a straight line, unless the intervention of a rock or some other obstacle obliges the industrious animal to take another direction.

In these burrows the marmot spends one-half of the year in sleep. It retreats to them at a period which varies from the middle of September to the middle of October, according to the early or late approach of the winter. It remains shut up until March or April, and then removes the cement with which it had blocked up the entrance, by pulling it inward, and comes forth. At first they go down to the lower part of the mountains, where the season is more advanced, and on the approach of summer return to the neighbourhood of their proper homes.

The marmot,—organized for digging, destined for an obscure underground life, requiring for its nourishment only the herbs and roots which grow in the neighbourhood of its habitation, and finding in its subterranean retreat the means of escape from most of its enemies,—does not possess the powers of many other animals of the order to which it belongs. It cannot leap like the rat, or climb like the squirrel. It walks but slowly, and raises itself to a short distance with effort; though it mounts with more facility than it descends. It rarely climbs, however, unless in the clefts of rocks, which it then does by the alternate use of its back and legs, in the same manner that chimneys are ascended by climbing-boys. Notwithstanding this want of agility, it does not appear that the marmots are often taken above ground, though they are usually out in sunshiny weather, in which they seem to have great enjoyment. Early in the morning the old marmots come out of their holes, and, when the sun is higher, bring out their young ones. The latter scamper about on all sides, chase one another, and, when disposed for more quiet enjoyment, seat themselves on their hind-feet, and remain in that posture facing the sun, with an air expressive of great satisfaction. While these parties are thus amusing themselves, or busied in collecting food or materials with which to line their winter habitations, they are not unmindful of their personal safety. One of their number is posted as a sentinel upon a rock, or some other commanding spot, and if he perceives an enemy, or any unusual object, that disquiets him, he sends forth a piercing cry, upon which the others retreat in all haste to their burrows, or, if these are too distant, ensconce themselves under the rocks. As they have

great quickness of sight, and can discern an enemy at a great distance, they are rarely surprised.

The marmots never assume an offensive attitude towards other animals; and when apprehensive for their safety, their first consideration is retreat. When afraid of any serious invasion, they forsake their habitations in entire families, and wander from mountain to mountain until they find a spot where they deem it eligible to construct new retreats. When, however, they are driven to the last extremity, and retreat is impracticable, they defend themselves with great spirit even against men and dogs; and with their teeth, with which they can inflict very terrible bites, and with their claws, they assail all who approach them.

The Alpine marmots breed in the summer, and the litter usually consists of three or four young ones, and sometimes as many as six. It has not yet been ascertained whether the young, which with the parents compose a family, are the produce of two years or of one year only. If the latter, the number of the young indicates that there must be several broods in one year.

When the marmots retreat to their cells for their winter sleep they are generally very fat, and continue so for nearly three months; but after that, they gradually decline, and are very thin by the time they awake. In their torpid state they lie in the hay close to one another, and rolled up like hedge-hogs, without exhibiting any visible appearances of life; but they may be revived by a gradual and gentle heat. From fifteen

to sixteen are usually found together, and sometimes, but not often, two families are found in the same burrow; and still more rarely is one marmot found alone. During their winter sleep they are taken in great numbers, partly for the sake of their skins, which are used as furs, and partly for their flesh, which is then considered by the mountaineers as an agreeable article of food, but which is not relished by persons of more delicate appetite. The fat of the marmot, which tastes like hog's-lard, is considered by the inhabitants of the Alps to possess medicinal virtues. By the Savoyards they are chiefly taken for the purpose of exhibiting them through various parts of Europe, after they have been tamed. A young one is easily domesticated; and may with little difficulty be taught to sit upright, or to walk on its hind feet. It is sometimes even taught to dance with a stick between its paws, and to perform a great variety of feats. In its tame state the marmot will eat almost everything except flesh. When drinking, it raises its head at almost every sip, like a fowl, looking around with watchfulness and apprehension. It, however, drinks very little. Its most marked partiality is for milk and butter; and its strongest aversion is towards dogs. Unless carefully watched, it is very destructive to all kinds of provisions, clothes, linen, and furniture; and the power of its teeth is such, that no cage that is not well guarded with iron can retain it in bondage. Tame marmots, if kept sufficiently warm, are able to dispense with their winter's sleep.



[Alpine Marmots.]

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HOGARTH AND HIS WORKS.—No. III.



"A fool's son is the heaviness of his mother."—Ecclesiastes i.

[THE IDLE APPRENTICE SENT TO SEA.]

THE Germans, who are not deterred by the apprehension of becoming tedious from exhausting every subject which they undertake to write upon, have a 'Commentary on Hogarth,' in five volumes, in small 8vo. This work, which was first published at Göttingen, 1794—1799, is the production of G. C. Lichtenberg, a man of great talents, who was Professor of Natural Philosophy or Physics in the University of Göttingen, and had a very high reputation as a teacher and lecturer. One of the volumes of this Commentary is devoted to the series of 'Industry and Idleness.' The views of the author are very peculiar, and expressed in language which would sound quaint and mystical to an English ear. We may nevertheless give one or two specimens.

Our readers will have already seen that it was the intention of Hogarth to exhibit a succession of extreme contrasts in the pursuits and the fortunes of the two apprentices. In the first plate, which Lichtenberg describes as the stem of the whole, the two heroes are presented together,—the one usefully employed, the other in the stupor of sottishness. The second and third plates are part and counterpart,—the one representing the industrious youth engaged in the duties of public worship, the other showing the unhappy

idler violating the Sabbath with the lowest of companions. The fourth and fifth plates are also pairs: the fourth, which we gave in No. II., exhibits the one apprentice in the confidence of his master; the fifth, which we present above, represents the other apprentice discharged and sent to sea. The German critic, referring to this succession of contrasts, says, "Hogarth has associated the histories of his two heroes in so masterly a manner, that not only each picture seems rightly paired with its counterpart (which, indeed, would be required), but he has contrived also to connect the several pairs so cleverly with one another that each seems engrafted on the other." For instance, the actual consequence of the increasing confidence of the benevolent master in the industrious apprentice was, that he should become a partner in his business and marry his daughter: this is the subject of the sixth plate. The contrast to this, exhibited in the seventh plate, is the idle vagabond returned from sea,—fallen still lower than before,—incapable of steady labour,—unfitted for domestic peace,—consorting with an abandoned woman in a den of filth and wretchedness. The eighth and ninth plates are again pairs. In the sixth and seventh, the one had reached the point of hap-

piness,—the other of misery. In the eighth and ninth, the one reaches the eminence of all honourable ambition,—the other is precipitated into an abyss of guilt and misery: the one becomes Sheriff of London,—the other is engaged in robbery and murder in a night-cellar. The catastrophe of this drama is now evident. In the tenth plate, as in the first, the industrious and the idle apprentice are brought together again: the murderer is charged with his crime before the magistrate. Their chances of happiness and prosperity were once the same;—there is a fearful distance now between them. The curtain might have dropped here, but Hogarth has chosen to make his design palpable to all. The last pair of the series, the eleventh and twelfth plates, represent the murderer dragged to execution,—the industrious and virtuous citizen Lord Mayor of London.

It must be manifest that Hogarth has taken extreme cases in the conduct of this story. It is not always that industry ends in wealth and civic honours;—it is not always that idleness conducts to ignominy and death by the executioner. Upon this point Lichtenberg speaks with somewhat of a caustic humour:—

"In order to display the consequences of industry and idleness, our artist has chosen the lives of two weavers. To be sure, with German journeymen weavers, he could not have carried his design into effect,—at least not with so much force of contrast. Whoever in Germany has learnt a trade, may easily, if he commences properly, make an end at the gallows with *éclat*. But, in opposition to the gallows, there is with us no proportional reward for industry: virtue and rectitude of conduct have happily no need of such a stimulus. Indeed, the representation of noisier domestic happiness (although certainly the greatest, perhaps even the only true happiness of the world) cannot be well chosen by an artist who adopts the graver as the instrument of teaching moral truths to the class of mankind who are called 'the lower.' A coach with six horses before and two footmen behind, is more easily depleted, at least it is more easily understood, than the nursery with its six children about the table, or even, if it so happens, with one half around it and the other half under it, and the two happy parents at either end. * * * Hogarth thus wisely chose, for more than one reason, to contrast the gallows with outward magnificence, which happily, however, may very well exist together with internal peace. In Hogarth's country it is not unfrequent that the son of a weaver or a brewer may distinguish himself in the House of Commons, and his grandson or great-grandson in the House of Lords. O what a land! in which no cobbler is certain that the favours of his great-grandson may not one day be solicited by kings and emperors. And yet they grumble! * * *

Hogarth was unquestionably right in selecting contrasts that addressed themselves at once to the senses. It was his business to arrest the thoughtless in their hasty steps to evil,—to confirm the prudent in their steady march towards good. In the conduct of his story there is not the slightest violation of probability. He chose instances that have occurred, and that are still occurring;—and he clothed them with the most striking accessories of reward and punishment. Our artist, however, did not neglect the intermediate contrasts between the final contrast of the Lord Mayor's carriage and the murderer's cart. In the several stages of Industry there are shown,—the satisfaction of being usefully employed,—the calm content of a humble and pious spirit,—the honest pride of receiving the confidence of a discriminating employer,—the happiness of a well-assorted marriage. In the several stages of

Idleness there are shown,—the misery of sottish indifference,—the feverish anxiety of low and profane excitements,—the reckless daring of the callous ruffian who despises even the tears of a mother,—the coward terrors and loathsome degradation of illicit intercourse. Without reaching the extreme height of the extreme punishment which Hogarth has delineated, there is quite enough to show in these several contrasts what are the natural rewards of Industry and the natural punishments of Idleness.

The terms "Industry" and "Idleness" may perhaps require some explanation. Gambling in the church-yard, on ship-board, or engaged in robbery, the Idle Apprentice seems to have as much to do as the Industrious Apprentice attending the service of the church, in his master's counting-house, or sitting as magistrate. Barrow, one of the most eloquent and logical of our great divines, has put the distinctions between laborious idleness and profitable industry very admirably:—"Industry doth not consist merely in action; for that is incessant in all persons, our mind being a restless thing, never abiding in a total cessation from thought or from design; being like a ship in the sea, if not steered to some good purpose by reason, yet tossed by the waves of fancy, or driven by the winds of temptation, somewhither. But the direction of our mind to some good end, without roving or finching, in a straight and steady course, drawing after it our active powers in execution thereof, doth constitute Industry." Again:—"Sloth, indeed, doth affect ease and quiet, but by affecting them doth lose them; it hateth labour and trouble, but by hating them doth incur them. It is a self-destroying vice; not suffering those who cherish it to be idle, but creating much work and multiplying pains unto them; engaging them into divers necessities and straits, which they cannot support with ease, and out of which, without extreme trouble, they cannot extricate themselves." We may do well to illustrate this position by an example or two. We will first take the real history of a man (and we prefer the instance of a poor and humble man) who directed his mind to some good end, without roving or finching, in a straight and steady course, drawing after it his active powers in execution.

In Arthur Young's 'Six Months' Tour through the North of England,' published in 1770, an account is given of the efforts made by Mr. Danby, of Swinton, to improve the condition of the colliers by whom he was surrounded. He was the owner of a great deal of barren moor land; and he determined to allow those of his miners who chose to labour in their over-hours small patches of this land for their own cultivation. "By this plan," says the writer, "the whole colliery, from being a scene of idleness, insolence, and riot, is converted into a well-ordered and decently-cultivated colony;—it is become a seminary for industry." The most remarkable of these miners was James Croft. We shall tell his story, as much as possible, in Arthur Young's words.

"Thirteen years ago he began his husbandry by taking an acre of moor, which he pared and burnt. His next effort was upon an addition of eight acres, which, however, was too much for him to improve at once, but he effected it all by degrees. These acres were exceedingly stony; so that, after a division by walls built out of the stones, many remained. One acre cost him two months to clear and fill up the holes; some single stones required near a week. Laborious as the work was, he completed it by degrees, and pared and burnt the soil.

"Two years ago he took in eight acres more, on which he is now hard at work. It is astonishing with what perseverance he attacks the most enormous stones, cutting them in pieces, carrying them away, and then

bringing mould to fill the holes up; and he has such an idea of neatness, that he will not pass one.

"He has five acres of grass; his management of which is very good: he lays all the dung he can raise upon it, mixed well with lime, and sometimes with good earth; and this dressing he repeats every third year, without ever failing. His stock of cattle is three milch cows, a heifer, and his galloway; their winter food hay, turnips, and straw.

"Besides the mere husbandry of his fields, he has done something in the ornamental way, having almost surrounded two of his closes with a young plantation of firs and other trees, which thrive extremely well. Attentive to every object that can render his little farm either profitable, convenient, or agreeable, he has, with no slight trouble, directed a little rill of water from the moors through his fields; by which means he not only has water in every field for his cattle, but can also water some of his grass, and thereby fertilize it much.

"He has thus managed, for several years, above nine acres of land, much of it always in tillage, and some constantly fresh breaking up and improving. We have found him cropping his land several years successively (a practice, though bad, yet of increasing labour), never sowing any without a previous ample liming and three or four ploughings; adding to his cultivated land by perfectly clearing the fresh soil from all stones, some of them of an enormous size, many tons in weight, and by paring and burning in the most spirited and laborious manner.

"When you consider these circumstances, and that at the same time he has had the courage to attack eight acres more, will you not conclude he has received much assistance, either of money or labour; or that many favourable circumstances, hitherto unrelated, have enabled him to make such advances in so spirited a conduct? But the very contrary of all this is the case. His work in the colliery has been regular, equal in every respect to the other men, and in some superior. His hour of going to the mine is twelve o'clock at night; the work is over at noon the next day. The remainder is all the time he has had to perform what I can scarcely call less than wonders. Nor has he ever received the least assistance of any kind, or ever expended one shilling in hiring the labour of another man. The quantity of lime he has laid on his land is very great, and much more than what is commonly used by the neighbouring farmers; the number of ploughings he has given his fields is equally superior; and yet all this labour has been performed with a single galloway: the lime brought six miles. It is astonishing what a spirit of perseverance must have actuated this extraordinary man, to execute, with such slight engines, works that will put many farmers, with teams, to the blush.

"Some assistance in weeding potatoes, in harvest, &c., and such slight work, he has received from his family; but you may suppose it not considerable, when I tell you, that of four or five children he has only one son, about fourteen years of age, who works with him constantly in the colliery.

"The time of leaving off work in the mine till that of sleeping, he regularly spent in unremitting labour in his farm. Since his beginning, he has never had more than four hours' sleep; and on moonlight or bright starlight nights, seldom so much. The regular severe fatigue of twelve hours' labour in the colliery has not been sufficient to bow down the spirit of this poor fellow; he applies the remainder of the day, and even steals from the night, to prosecute his favourite works of husbandry—that is, to make up his hours of work twenty out of the twenty-four.

"Such a conduct requires a genius of a peculiar cast. Daring in his courage, and spirited in his ideas, the

most extensive plans are neither too vast nor too complicated to be embraced with facility by his bold and comprehensive imagination. With a penetration that sees the remotest difficulty, a prudence and firmness of mind that removes every one the moment it is foreseen, we attribute the wonders he has performed to the powers of his mind, and forget almost that the whole which is executed of his ideas has been the work of his own hands. The severest fatigue, the most assiduous labour, have been unable to quench the fire of the one, or repress the vigour of the other. The greatest, and indeed the only object of his thoughts, is the improvement of the wilds that surround him; over which he casts an anxious but magnanimous eye, wishing for the freedom to attack, with his own hands, an enemy, the conquest of whom would yield laurels to a man of ample fortune."

Few, perhaps, are capable of emulating industry such as this. The task which this poor man performed required great strength of body as well as great vigour of mind. But even a considerably less capacity for labour, systematically exerted, must have produced real comfort and happiness to the miners who took James Croft as their model. The struggle with natural difficulties, followed by the eventual conquest of them, was in itself happiness. The moors were stony and barren; but labour and art were triumphant. The industry which subdued the barren moors made the cottages smile with their produce. There was increased production and diminished waste. The excitement of industry took the place of the excitement of drunkenness; order succeeded to irregularity; cleanliness to filth; comfort to squalid poverty; content and peace to brawling and riot.

Let us take another example of *mis-directed* labour and ingenuity:—that of a skilful and active thief. This unhappy man has written his own history.

James Hardy Vaux was transported in 1800, having been found guilty of picking a gentleman's pocket. He returned from transportation in 1808. Wanting at first the means of subsistence, he stole a coach parcel, containing a considerable sum of money. Being a person of some education, he at length obtained employment as a copying clerk, in an attorney's office, at a guinea a week; and afterwards was employed as a reader, or corrector of the press, in a printing-office, at two guineas a week. Here, then, was an opportunity for this man to redeem his past crimes—to maintain himself in comfort by the honest exercise of his talents, without any severe tasking of his bodily or mental powers. For three weeks only could he persist in this course. He met with companions in his former iniquity, who persuaded him once more to incur misery and disgrace in the attempt to get "*an easy guinea*." These are the wretched man's words. How truly did Barrow say—"Sloth indeed doth affect ease and quiet, but by affecting them doth lose them; it hateth labour and trouble, but by hating them doth incur them!" Hardy Vaux met an old associate who had been seven years in the hulks, but whose father had received him with great kindness, and was inclined, if he continued honest, to take care of his future fortune. This other spurrier of industry said, "*he could never reconcile himself to confinement on a ship-board*." Other companions joined these two the same day at the dinner-hour, "*ridiculing*," says Hardy Vaux, "*with too much effect, the idea of a man like myself being confined to certain hours like a school-boy*." The printer's reader never returned to his office. He says, "*I was effectually laughed out of my late good intentions; and before we parted had joined with the loudest of them in decrying and contemning every species of servitude and confinement; and cordially agreed in a resolution to live independent while I could.*"

And what was the sort of independence which this man obtained, when he exchanged the life of a corrector of the press for that of a swindler? He spent his whole time in prowling from shop to shop, purchasing watches and rings from jewellers and pawn-brokers. Was this a pleasing task, more agreeable than his former "servitude and confinement"? Was this the way to obtain the "easy guinea"? "I determined," he says, "to make a circuit of the town, and not to omit a single shop in either of those branches; and this scheme I actually executed so fully, that I believe I did not leave ten untried in all London, for I made a point of commencing in a certain street, and went regularly through it on both sides of the way." Here was labour that, under profitable direction, might have brought the labourer wealth and honour. It is true that the swindler dressed well, and put on the outward character of a gentleman: But he was walking on quicksands, and he knew his danger. The sense of insecurity is of itself enough to destroy every advantage of worldly gain. "On two or three occasions," he says, "so much suspicion arose, that I was obliged to exert all my effrontery, and to use very high language, in order, as the cant phrase is, to *bounce* the tradesman out of it." At last the successful thief and swindler was apprehended and tried for stealing a snuff-box; the evidence was insufficient, and he was acquitted. Was this a warning to him? He robbed the same jeweller's shop a second time, was convicted, sentenced to death, and finally transported for life. Who can doubt which was the happier and wiser man, or which followed the least troublesome occupation,—James Croft, with health and contentment digging and paring his stony heath, or James Hardy Vaux, sinking from door to door, with a lie ever upon his lips, to plunder the "easy guinea?"

This, many persons may say, is an extreme case. They can understand the force of an example of industry like that of James Croft; but it is not so clear that idleness leads to robbing jewellers' shops, as Hardy Vaux did, or murdering in a night-cellar, as Hogarth's apprentice is represented to have done. Idleness, we answer, is a state of temptation. There is an old saying—"a working monk is assaulted by one devil, but an idle one is spoiled by numerous bad spirits." The degree of the temptation is only a question, perhaps of time, perhaps of opportunity. But that the path of sloth is full of pit-falls no one can doubt. Take the commonest case of a slothful labourer—made slothful, probably, against his original desire, by a weak and corrupt administration of the laws for the relief of sickness and impotency. He begins by being a pauper—he goes on to practise the arts of a poacher—he ends with the desperate courses of a thief. Take the equally common example of a "man on the town"—a fine gentleman with a large appetite for pleasure and a small income for its gratification. He commences by incurring debts which he has no prospect of discharging—he goes on by trusting to the gaming-table for the supply of his wants—the gaming-table is a very uncertain base, and he looks at last to operations more within the control of his own will—he finishes as a swindler. Take, lastly, the not unfrequent example of a tradesman who neglects his business. His charges of rent and servants begin to press heavily upon him;—the ordinary receipts of his trade will not meet his engagements;—he begins to abuse one of the greatest instruments of commerce, the power of obtaining credit;—he buys goods, and sells them at a loss, to patch up the demands upon him, or he enters upon the desperate career of "accommodation bills"—that is, of exchanging promises to pay for other promises to pay, each equally worthless, raising money upon them at a high rate of interest;—lastly, he absconds, and finishes

as an outlawed bankrupt. These are a few of the many intermediate steps between the first abandonment to sloth, associated with the first departure from integrity, and the ultimate vengeance of the offended laws.

But to return to our great moral painter. When Hogarth made it a part of the fate of his Idle Apprentice that he should be turned away and sent to sea, the painter showed that one of the means of reformation which society provides for sloth and imprudence was bestowed upon his depraved hero. A restless will, impatient of the restraints of unvarying labour, sometimes finds a field for honest and useful exercise in the adventurous variety of a sailor's life. The discipline, too, of a ship is so strict, that idleness is there driven out of its ordinary course of shifts and expedients. Hence a sea life often produces a salutary change in the character of an imprudent but not thoroughly corrupted youth. A sailor's duties may absorb those energies that, in other situations, might crave for the excitements of dissipation; but it is a mistake to imagine that a life on ship-board can produce any salutary effects upon a wicked and obdurate disposition; or that a young man can discharge his duties as a seaman, and still preserve his hatred of steady labour and his love of base gratifications. It requires the same qualities to make a good sailor as a good citizen—industry, perseverance, obedience, integrity. The Idle Apprentice is not likely to display these qualities. His fate may be read in Hogarth's wonderful plate at the commencement of this Number. The figures are few;—but they all tell the story. Look at the group around "Tom Idle's" sea-chest. The unhappy boy has thrown his indentures overboard;—his mind is intent upon a vulgar joke suggested by the place in the river where the boat is passing;—his demeanour is so reckless that one of the sailors, with a coarse warning, is exhibiting to him a cat-o'-nine tails—the other, with his hard features of admonition, is pointing to the gibbet on the flat shore. But there is one of that group who would touch his heart by other associations—it is his weeping mother. Without being plunged into the lowest depth of obstinacy, he might affect to despise the terrors with which those rough monitors seek to affright him. But a mother's tears!—if he resist these tokens of all she has done and all she has felt for him, of all she hopes and all she dreads in this parting hour,—he is lost. She "is clinging with the fondness of hope not quite extinguished to her brutal, vice-hardened child." He meets her love with a base and desperate ribaldry. He is lost!

The sixth print of the series, which will be found in the opposite page, represents the Industrious Apprentice married to his former master's daughter. They are now in partnership, as their joint names on the sign (signs were then common in London) indicate. It is the morning after the marriage. The door is beset by clamorous beggars, by noisy musicians, and by still more noisy butchers with marrow-bones and cleavers. On occasions like these, those who whine for alms, and those who compel a boon by making themselves disagreeable, are abundantly gratified; for then the most sensible are apt to forget that what is bestowed upon the idle in the way of gift is so much taken away from the store which maintains the diligence of the industrious. The peculiar humour of Hogarth is poured out in this print. The beggar in the tub, bawling out his new song to the happy pair,—the still-legged bow of the drummer receiving his pay,—the eager gaze of the one butcher, and the bullying roughness of the other, who is driving back the Frenchman with the violoncello,—all these are characteristic traits of the motley population of a great city. We shall add a few sentences from Lichtenberg, which may amuse if they do not instruct.



"The virtuous woman is a crown to her husband."—Proverbs, xii. 4.

[THE INDUSTRIOUS APPRENTICE MARRIED TO HIS MASTER'S DAUGHTER.]



"The adulteress will hunt for the precious life."—Proverbs, vi. 26.

[THE IDLE APPRENTICE BETRAYED BY A PROFLIGATE ASSOCIATE, AND APPREHENDED FOR MURDER.]

"It is the custom in England, or at least in London, for the butchers to make before the houses of the newly married on the morning after the wedding,—if they think it will pay them for their trouble,—a kind of wild Janitzary music. They perform it by striking their cleavers with the marrow-bones of the animals they have slain. To comprehend that this music is,—we shall not say supportable, for that is not here the question,—but that it is not entirely objectionable, we shall observe that the breadth of the English cleaver is to that of the Germans nearly in the same proportion as the diameter of the English ox is to that of Germany. When, therefore, properly struck, they produce no despicable clang; at least certainly a better one than logs of wood emit when thrown to the ground; and yet the latter are said to have occasioned the invention of the rebeck. We are even of opinion that if the cleavers were duly tuned and proportioned, as perhaps was the case with the hammers of Pythagoras, they would probably produce a music far superior to that of some newly-invented harmonicons, constructed of nails, cucumbers, and bricks*. We shall not urge that this music must be rendered more agreeable by the concatenation of ideas it excites, and which refer to roast-beef, though it is evident that in this case the notion must mingle with the finer feelings produced by the music. It is incredible of what subtle but intelligible signs the stomach may make use to indicate to the heart that it is united very closely to it in their common citadel."

The contrast exhibited in the seventh plate has been already noticed. The Idle Apprentice has returned from sea—unchanged, unrepenting. He plunges at once into more fatal and desperate courses. He has entered upon a career of robbery. In a wretched garret, in companionship with a depraved woman, he wakes in the night in a condition of extreme terror. A cat has come down the chimney, and he fancies he hears the officers of justice. "The sound of a shaken leaf shall chase him."

The eighth plate represents the City Feast of Good-child, who has become Sheriff of London. This was a natural course of advancement for industry and integrity accumulating wealth. The course which the Industrious Apprentice has pursued, properly fits him for public trusts and public duties. Hogarth, in the print before us, has, with his usual felicity, represented the coarse enjoyments of a city feast. The eager clamour for fresh supplies—the gloating satisfaction of the healthful feeder, and the exhausted appetite of the apoplectic one,—these are traits of every-day occurrence, which Hogarth has not exaggerated. The guttling of corporations, miscalled hospitality, is the greatest abuse of our municipal institutions. The "Companies," who habitually feast with all the pampered luxuriousness of a Roman emperor, have enormous funds at their disposal, some of which they dole out in charity, and more of which they employ in their courses of wasteful riot; and this they call "making good for trade." Properly applied, these funds would eradicate want instead of cherishing it, and bestow sound and elevating instruction upon those who now suffer the debasement of ignorance;—properly applied, these funds would empty our prisons and fill our schools.

Honours and municipal privileges belong to our constitution. They are the outward rewards to the middle classes for managing their own affairs. They are honest objects of ambition which are open to all men. But the "board-day" and the "council" dinner are what the really useful members of corporations despise. Something of "high festival," to commemorate some public triumph—something of pro-

* This evidently is intended to ridicule some ephemeral projects of the time.

fuse hospitality to welcome a new functionary—may be, without impropriety, tolerated and encouraged; beyond this is waste and vanity. Changes are taking place amongst us which may restore municipal corporations to their real uses, and destroy their abuses;—and then an upright and intelligent citizen may be proud of his Company and his Corporation. "The Londoners," says an eloquent writer, "loved their city with that patriotic love which is found only in small communities, like those of ancient Greece, or like those that arose in Italy during the middle ages." It will be so again when those institutions, "which now seem only to exist for the delectation of epicures and antiquaries," become again conspicuous instruments in the advancement of civilization.

In the third plate of the series, which represents the profanation of the Sabbath by the Idle Apprentice and his ignorant companions, the fellow with the patch over his eye is a prominent character. In the ninth plate we find him again associated in crime with the wretched idler. In a night-cellar they are busily engaged in dividing their booty. Their accomplices are thrusting their murdered victim into a trap-door. Behind is a scene of brutal debauchery. But the hour of retribution is fast approaching. The profligate companion of the devoted apprentice is betraying him to the officers of justice. His career will soon be at an end: the catastrophe is beginning.

At the time when Hogarth painted, the thieves of London were a most daring and almost triumphant body. The most desperate crimes were committed with impunity. Not a century ago it was considered unsafe to go out after dark in the streets, even in a coach. Up to a much later period, no one would dare to go through Lincoln's-Inn Fields at night. In 1728, some robbers confederated to rob the queen in St. Paul's Churchyard, on her return from a city festival; and her majesty only escaped because the thieves were busy plundering a member of parliament who was returning in his chariot from the House of Commons. Rescues of thieves by armed bands of other thieves were not at all unfrequent. Night-cellars, such as Hogarth has exhibited in his print, and even day-resorts, were numerous in London. The most celebrated, according to Sir John Fielding, were, the Bull in the Pound, the Apollo Gardens, the Dog and Duck, and the Temple of Flora. Apollo and Flora were not worse employed in their associations with the rogues and profligates of the ancient mythology, whose misdeeds boys read of in some of our great classical schools with such persevering labour. Such haunts, and such daring depredators, have almost ceased to exist: they have been banished by the improvement of our streets,—by lighting with gas,—by a preventive police.

We have now traced the Industrious and the Idle Apprentice to that point when their future career must be determined. The one is a magistrate of the first city in the world—the other is an apprehended felon. The course of their progress, such to such different results, is natural and certain. Is there anything of chance in these violent contrasts? Look at the history of all criminals—it is that of Hogarth's apprentice. The stages are idleness, depraved excitements, contempt of the Sabbath, profligate companionship, disobedience, contempt of the affections which God implanted in us for our happiness and our instruction, obduracy of heart, desperation, and death by the laws. Look at the history of all those who have advanced themselves from small beginnings to wealth and honour—it is that of Hogarth's apprentice. The stages are industry, calm enjoyments, love of social worship, few and tried friends, obedience, cherishing of the pure affections, perseverance in well-doing, honest ambition, public

respect. Hogarth kept strictly to the true and the probable in both his examples.

The moral lesson Hogarth intended to convey would have wanted much of its force had any of the usual experiences of life been violated to give it point. How faithfully the course of idleness and depravity has been depicted, we need nothing beyond the observations of every day to inform us. The prosperity of the industrious and well behaved is, however, so frequently attributed to "chances" and "lucky hits," that the tale Hogarth has told of his Industrious Apprentice is by many felt to be less natural than the other. We think it is not so. The fortunate circumstances which occur to lift the industrious upward, are, as much as their other advantages, the effects of that industry and good conduct without which they would not have been so placed that "lucky chances" could occur or could benefit them. So, in the instance before us, without a long previous course of industrious and trustworthy conduct, the Industrious Apprentice would not have been in a situation for the good fortune of being the husband of his master's daughter and the partner in his firm. The biography of every nation is full of instances of men who, by talents and useful inventions, have raised themselves to a commanding position in society. But all men are not endowed with such talent; and it does not appear to have been the intention of Hogarth to represent *their* progress. He intended rather to exhibit the prosperity which might be attained by the practice of virtues which no man is naturally incapable of exercising, and to indicate a path to consideration which no man wants more than the will to follow. He has represented an extreme case, certainly. There are many lesser elevations than that of the chief-magistracy of London, on which the industrious and wise man may rest happy and comfortable. Nevertheless, many of our readers would be surprised to learn how large the proportion is of those who have attained that dignity from the lowest beginnings. To illustrate this fact, let us take the list of the Corporation of about thirty-eight years since, consisting chiefly of persons who had already filled the civic chair, or had it in near prospect. In this limited number of names, we find the following of persons not otherwise remarkable than for this,—that their industry and good conduct laid the foundation of their dignities and fortunes. In recording their names, and noticing the prominent incidents of their lives, we cannot refrain from pleasing ourselves with the idea that many of them were stimulated and encouraged in their career by the moral paintings which placed the good and the evil so vividly before them.

Sir James Sanderson was born at York, in 1741, of worthy though humble parents. His father was a grocer, who, dying young, left his business to be carried on by his widow till the only son should arrive at a proper age to undertake the management of it himself. To fit him for business, he was sent to Mr. Golding, an eminent hop-merchant in London, whose regard for his *protégé* terminated only with his life. After some years spent with Mr. Golding he returned to York, with a view of carrying on the trade left him by his father; but finding it contracted, and barely sufficient to support his mother and sisters, he left it to them, with an equal distribution of his little fortune (100*l.*). With his share in his trunk, he returned to his friend Mr. Golding, in London, who soon after settled him in connexion with Mr. Hunter, a considerable hop-merchant, from whom Mr. Sanderson experienced the most affectionate attention and support, which he returned by devoting himself to the interest of his benefactor. He subsequently formed an advantageous matrimonial connexion; and by redoubled industry, and rigid and unremitting attention to his business and other duties, he finally attained to wealth and consideration. He became Sheriff in 1786, and Lord Mayor

in 1792. In the year following he was created a baronet, for his services during his mayoralty.

Alderman John Boydell was born at Dorington, in Shropshire; and, at the age of twenty-one, came to London on foot, and bound himself apprentice to an engraver for seven years. The early part of his career was full of trial and difficulty, but he gradually rose to the civic chair, to fortune, and to a high degree of fame as a patron of the fine arts in this country. The illustrations of Shakspeare, painted at his cost, and engraved under his direction, are well known, and reflect a permanent honour on his name. He was distinguished for his munificence to the artists and engravers whom he employed.

The name of Alderman Skinner, who was Lord Mayor in the year 1794, deserves to be mentioned in this place, as showing the wealth and civic distinction which may be attained by industry and good conduct, in spite not only of obscurity of birth, but even of contracted education. Mr. Skinner's birth was humble, and his education confined; he was born at Old Brentford, in 1740, and was apprenticed, by the parish of Isleworth, to a box-maker and undertaker, in Newgate-Street. He was a sober, attentive lad; and his good qualities recommended him to the notice of a hbsier residing in the same street, who supplied him with a small sum of money, with which he commenced petty household-broker, salesman, and undertaker; and by persevering industry, accompanied by an acute turn of mind, he ultimately became the first auctioneer in the kingdom; and was almost universally employed in the sale of estates, &c. The quantity of landed property, and other things of value, that passed yearly through his hands, is almost beyond conception; and his profits were in adequate proportion. His biographer computes that one-fourth of the capital of the nation had passed through his hands; and, with regard to his profits, thinks that Peter Pindar spoke more than poetical truth when, speaking of this alderman, he said,

"Who, with a hammer and a conscience clear,
Gets glory and ten thousand pounds a year."

His conduct during his mayoralty was spoken of at the time as remarkable for its propriety and correctness.

We have no room for further particular details on this point; but the following brief notices relating to names in the same list with the above, will, with the statements we have already given, show still further that Hogarth has not departed from probabilities in depicting the course of his Industrious Apprentice. Sir William Plomer began life in a dark oil-shop in the neighbourhood of Aldgate; Brook Watson, Esq., elected member for the City in 1784, was the son of a journeyman-tailor, to which trade he served an apprenticeship; Sir John W. Anderson, Lord Mayor in 1797, and member for the City, was the son of a day-labourer; Alderman Macauley was the son of a captain of a coasting-vessel, who died leaving nine children unprovided for; Sir William Staines was a working pavior and stone-mason; Alderman Hamerton, also a pavior, from being a very poor boy, raised himself to affluence; Sir John Eamer originally kept a small grocer's shop, and afterwards carried on a great wholesale business in the same line; Alderman Wright was a servant in the warehouse of which he afterwards became master,—he acquired a fortune of 400,000*l.*; Alderman Gill was also a servant in the same house, and acquired an immense fortune,—he began business with Alderman Wright as a stationer, and married his sister,—they lived sixty years in partnership together without having ever in any shape disagreed, and both died in the same year—1798; Sir Samuel Fludyer was originally employed in attending on pack-horses, but by great industry, joined to an enterprising spirit, acquired immense wealth, and attained to great importance in the commercial world.

Several other instances could be mentioned of persons, members of the Corporation at the latter end of the last century, who had raised themselves from an original equally low with those we have named; and this has been often the case with those who attained to the chief magistracy of London. This is easily accounted for; for while experience shows this dignity to be attainable by the lowest, this high place, like others, appears the most splendid to those who are at the greatest distance from it, and who have therefore a stimulus in pressing forward to it, unfelt by those who have always seen it as a near object.

When it is considered how many virtues and how much knowledge go to make up the character of a good tradesman, it must be a matter of proud satisfaction that the highest municipal honours have fallen upon many who have risen to commercial eminence from small beginnings. Such men have invariably been benefactors of their species. To industry they must have united great economy; and judicious economy is the main-spring of all profitable industry,—the source from which all the great private and public works of man are created and upheld. The opulence of individuals, founded upon their industry and frugality, has raised up some of the most valuable institutions of our own and other countries;—the poverty of individuals, produced by their wasteful expenditure, has destroyed many of the most splendid creations of wealth and taste, and has involved in that destruction the prosperity, not only of families, but of whole districts. History is full of such examples. But these

considerations extend beyond individual interests. Nations depend for their prosperity, and consequently their strength and happiness, upon the industry of private men. Their aggregate industry makes up a flourishing community. The eloquent divine, whom we have already quoted, truly says, "It is industry whereto the public state of the world, and of each commonweal therein, is indebted for its being, in all conveniences and embellishments belonging to life, advanced above rude and sordid barbarism; yea, whereto mankind doth owe all that good learning,—that morality,—those improvements of soul, which elevate us beyond brutes."

"To industrious study is to be ascribed the invention and perfection of all those arts whereby human life is civilized, and the world cultivated with numberless accommodations, ornaments, and beauties."

"All the comely, the stately, the pleasant, and useful works which we do view with delight, or enjoy with comfort, industry did contrive them, industry did frame them."

"Doth any country flourish in wealth, in grandeur, in prosperity? It must be imputed to industry,—to the industry of its governors settling good order,—to the industry of its people following profitable occupations:—so did Cato, in that notable oration of his in 'Sallust,' tell the Roman senate that it was not by the force of their arms, but by the industry of their ancestors, that the commonwealth did arise to such a pitch of greatness. When sloth creepeth in, then all things corrupt and decay; then the public state doth sink into disorder, penury, and a disgraceful condition."



"Thou shalt do no unrighteousness in judgment."—Leviticus, xiv. 18.
 "The wicked is snared in the work of his own hands."—Psalm xix. 16.

[THE IDLE APPRENTICE COMMITTED FOR TRIAL BY THE INDUSTRIOUS APPRENTICE, WHO HAS BECOME A MAGISTRATE OF LONDON.]

We have little to say in explanation of the above noble picture. The murderer is at the bar of justice—his accomplice is giving evidence against him—his wailing mother is pressing forward in her agony to implore mercy. The magistrate is the former fellow-apprentice of the criminal. The curtain may fall. The tragedy is ripe. The execution and the Lord Mayor's

Show are the accessories which can add nothing to its lessons.

* * * The Office of the Society for the Diffusion of Useful Knowledge is at
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TENIERS.



[Knife-Grinder of Teniers.]

THE name of David Teniers is common to two painters, father and son, the subjects and styles of whose pictures are very similar. The younger Teniers, however, is much more distinguished than the elder.

David Teniers the younger was born at Anvers in the year 1610, and was brought up under the professional instructions of his father. Some biographers state that he left the study of his father for that of Adrian Brauwer, and that he even received lessons from Rubens. The elder Teniers was certainly a pupil of Rubens, and there is no improbability that the younger may have received instructions from him; but there is no proof that he did: the belief that he received instruction, not only from Rubens, but Elsheimer and other masters, is reasonably conjectured to have arisen from the wonderful fidelity and success with which, during the earlier portion of his professional life, he employed himself in imitating the works of most of the painters of his time. He also amused himself by making compositions in the styles of different celebrated painters, as Titian, Tintoretto, the Bassans, Rubens, &c., in which he imitated the touch of these great men with such ability, that the imitations, which are known by the name of pasticcios, deceived the best judges of his own time, and since have frequently been mistaken for originals, and sold as such. They must, therefore, have had great merit. However, all the skill which Teniers exhibited in this line procured him no better name than the Proteus, or else the Ape, of Painting; although he had certainly acquired considerable reputation in his native town before the period commenced in which his original powers were manifested.

This latter period is said to have been determined in the following remarkable incident, which we find related in the 'Biographie Universelle.' Teniers was one day in an alehouse of the village of Oysel, and when he was preparing to depart found he had no money to pay the reckoning. He then, like George Morland in similar circumstances, bethought himself of painting some little piece and selling it to raise the necessary funds. In ordinary circumstances, he would probably have thought of copying a picture; but, as there was none to copy, he called to him a blind man who was playing on a flute, and made him the subject of a picture, which he sold for three ducats to an English traveller, who was stopping at the cabaret to change horses. A note appended, in the work we have mentioned, to this statement, informs us, that the purchaser was a nobleman, who a long time preserved the picture, which the connoisseurs regarded as a masterpiece of Teniers; but it was at last stolen, and never again heard of until 1804, when it was discovered, with several other compositions of the same artist, by Colonel Dickson, in Persia.

After this, some other circumstances directed the attention of Teniers to more original undertakings than those by which he had previously been known, and which would never have established his fame on its present basis; and he appears seldom, unless in the way of amusement or indulgence, to have again exercised his old powers as a copyist. He became a constant and faithful observer of nature: the example of his father probably influenced him in choosing for his subjects village festivals, fairs, and merry-makings. His paintings on these subjects place before us not only the grotesque costumes of the villagers of his country, but represent, with much nature and great justness of expression, the play of their features, their manners, their passions, and their individual characters. That he might the more conveniently mingle with the scenes he chose to represent, he established himself in the village of Perk, between Antwerp and Mechlin; and there he studied the undisguised impulses of natural character among the lower classes of the people, and has left

many pleasing and beautiful memorials of occurrences in themselves uninteresting or even repulsive, but rendered engaging by the delightful mode in which they are represented.

The landscapes of Teniers are not in general well chosen; but they possess in an eminent degree the merit of local truth, and the talent is astonishing with which he has exhibited the ever-varying effects of atmosphere. In this high quality he is scarcely surpassed even by Claude Lorraine himself; and it often makes complete amends for the flatness and insipidity of his scenery. In the interior of apartments, the cottage, the cabaret, the guard-room, or the chemist's laboratory, the clearness and precision of Teniers is not less admirable than in his exteriors. He surpassed Ostade and many other painters in his knowledge of perspective of his art. The touch of Teniers' pencil was lively, light, and ethereal; and the tone of his colouring is rich and natural. By continual practice upon the same system, he acquired an almost unexampled promptness in execution. This enabled him to paint a vast number of pictures. It was not unusual for him to execute a picture in a single day, and he used himself jocosely to observe, that it would require a gallery six miles in length to contain all the pictures he had painted. He was in the habit of assisting the landscape painters of the day by putting figures into their pictures; hence there are many such works which owe an increased value to this circumstance. The works of Teniers are numerous in the collections of this country, Holland, and Germany, and still bear very high prices. Sir Joshua Reynolds used to regret that this artist had not employed on nobler subjects, than he has generally chosen, the elegance and precision of his pencil. But this observation does not seem well founded. It is questionable whether he would have attained more than mediocrity in that rank where this elegance and precision could not always be a substitute for an innate taste for fine forms and grandeur of style.

The fine picture, our engraving of which is taken from the 'Musée Français,' possesses the usual characteristics of Teniers' style, and is, therefore, remarkable for its soft and harmonious colouring. The general tone is slightly golden; the sky, the earth, the houses, the two peasants in the side view, and even the trees, partake more or less of this tint. The principal figure, illuminated by a tranquil light, is placed upon a clear depth; and the writer of the illustrative article in the work we have mentioned, dwells with much interest on the openness and serenity the countenance expresses, and conjectures, rather unnecessarily we imagine, that it is the portrait of a warrior who had disguised himself in this manner for the purpose of examining the enemy's country and collecting the information necessary for a plan of attack.

The life of Teniers, so far as known, presents few events that claim our notice. In private, the mildness of his manners and the regularity of his conduct seem to have endeared him to all who were personally acquainted with him. He soon obtained the favourable notice of the Archduke Leopold, who appointed him his principal painter, and made him one of the gentlemen of his chamber. That eccentric woman, Christina, Queen of Sweden, made him a present of her portrait with a chain of gold; and the prince Don John of Austria became his pupil. After an industrious and apparently comfortable life of eighty-four years, Teniers died at Brussels in the year 1694.

KOORDS.

THE Koords, who inhabit a mountainous country, and live alternately in tents and houses, differ from the Bedouin Arabs in the traits which usually distinguish the inhabitants of mountains from the dwellers in

plains; but they are equally with them—perhaps more than equally—addicted to plunder in all its forms. They are no less skilful as thieves than daring as robbers. Personally, they are a much nobler race of men than the Arabs; and their higher measure of courage renders it more difficult to intimidate them from attacking travellers and caravans. Their forbearance is also less to be calculated upon than that of the Bedouins. With many respectable points in their character as a people, their passions are fierce and strong; and as their opportunities of plunder are less frequent than those of the Arabs, they are more anxious to make the most of them when they occur. An attack from Koords is therefore contemplated with considerably more alarm than one from the Arabs. The people who inhabit the country of the Tigris and Euphrates, and who are well acquainted with at least three of the parties embraced in the comparison, have a proverb which strongly indicates *their* opinion of the people to whom our statements refer:—"The Koords are worse than the Arabs; the Arabs are worse than the Yezidees; and the Yezidees are worse than Eblis*."

Nevertheless, they do not kill the unresisting; and, like the Arabs, are careful observers of the duties of hospitality. No man will molest a stranger with whom he has eaten, nor suffer him to sustain any injury in property or person under the protection of his roof. In their cabins we have ourselves lain down to sleep on the same carpet with five or six of the most ferocious-looking men we ever saw, while our baggage lay about in the same room, and our throats were completely at the mercy of the daggers which each Koord wore in his girdle; yet we awoke in safety, and were allowed to depart in peace. This was in Koordistan Proper; but Armenia also is very extensively inhabited by the same people; and when we were preparing to leave the capital of Persia, with the view of penetrating through Armenia to the Black Sea, our hopes of performing the journey in safety were considerably damped by the reports we heard of a powerful Koordish robber who infested the road near the narrow mountain-pass of Dahar, about four stages from Erzeroom. We were informed that it would, from the post he occupied, be scarcely possible to escape his notice; and that even the British Envoy at the court of Persia was obliged to pay a sort of black-mail in the shape of annual presents, in order that his packages from England might not be plundered.

This statement led us to regard our approach to Dahar with frequent anxiety while traversing the 600 miles which intervene between it and Tehraun. At last, the guide whom we had hired at the preceding stage to conduct us through the untrodden snows, and who, in snow-shoes and with bandaged legs, had trotted on without apparent weariness for twenty-five miles, brought us to the brow of a mountain, whence we looked down into a deep and narrow dell. The guide directed our attention to a cluster of black spots on the snow, and informed us that it was the village of Dahar, inhabited by the robber chief and his people. It was our wish and intention to have pushed on, through the dell and the pass beyond, to the next village; but the guide declared he could go no farther, and the muleteers made the same declaration for their jaded cattle. On better consideration, we were reconciled to this, by perceiving that it would be impossible to descend the mountain and pass through the village unnoticed; and we felt that it might be safer to exhibit confidence by claiming the hospitality of the chief, than to indicate our suspicions by attempting to pass on.

Our guide had trotted down the mountain before us to notify our approach to the chief; and when we got

* The Mohammedan name for the devil.

down into the dell, he returned and conducted us to the very den of this Koordish lion. About the entrance stood several men who were much better dressed than the inhabitants of such small villages usually are. On our approach, a man, rather stout in person and much pitted with the small pox, stepped forward and assisted us to dismount. He was dressed in a scarlet pelisse and silk turban, and his appearance, as a whole, was very conciliating, though the somewhat lowering expression about his eyebrows tended to neutralize the kindness and good-humour expressed in his lower features. This was the chief himself. We were ushered into a room parted off from the stable by a wall about three feet high. This room was long and narrow; and its length was divided into three equal portions, the middlemost of which was an open path leading from the entrance to the fire-place, while, between this and the wall on each side, the ground was covered with mats, felts, and carpets, on which several elderly men were reclining and smoking their pipes. There was a slight move among them when we entered, and a space on one side of the fire-place was cleared away for us, and there we spread out our own carpets and sat down upon them. It was our usual custom to arrange matters somewhat differently, and, if we found the people many or troublesome in the room appropriated to our use, to request them to withdraw. But this our present position did not warrant. In about ten minutes the chief came in and seated himself on the other side of the hearth; and, subsequently, the other men we had previously seen at the door dropped in, until the room was nearly filled with smart-looking Koords, with daggered girdles, who, as they smoked their pipes, fixed their eyes on us and our doings with much attention. The chief only was furnished with a pipe by which the smoke is drawn through water before it arrives to the mouth; and as he sat quietly occupied with it, and fondling a fine little boy, the youngest of his sons, we felt there were many other men before us, either of whom, if left to our own impressions, we should more readily have guessed to be the famous robber of whom we had heard so much. Among our various observations, it was not the least amusing to note the humility, patience, and good-humour which had taken the place of the usually morose and assuming manner of our Persian servant, Ali, as he moved about in the room while preparing our dinner at the fire. The supper of the Koords was ready before our dinner;—it consisted of an enormous quantity of wheat* boiled with some bits of mutton, and lubricated with melted butter. Many were the right hands employed in diving into this dish in search of the stray bits of mutton, and in compressing the grain into balls convenient for the mouth, until, in a very short time, the bottom of the capacious wooden bowl began to appear. The chief did not partake. When the mess appeared, he intimated a wish for us to eat with them; but, as we had a fowl preparing, we declined, without at the moment adverting to the advantage of the proposal to us, as the Koords, like the Arabs, rarely molest those with whom they have eaten. He then said he would himself wait and partake of our meal; and directed a plate of the pillau to be set aside for our use. When our dinner was served up, he came and seated himself at our tray, and, declining a knife and fork with something like contempt, helped himself freely with his fingers to what he pleased, occasionally also handing a nice bit to his little boy; so that very soon we had, with his help, completely cleared the whole concern, to the visible uneasiness of our man, whose meal usually consisted of our leavings.

* Rice is commonly used for this standard dish, which is called a pillau. But rice is difficult to procure in the remote villages of Armenia, and wheat is used as a substitute.

When our usual bed-time arrived we ventured to intimate a wish that the men should withdraw. The chief spoke a few words, and they immediately retired, only himself and an old white-bearded man remaining. They stayed until after midnight, when some coffee was brought in, of which the chief handed a cup to the writer, who was then awake, and shortly after withdrew with the old man. We had reason to think that he remained so late to prevent any of our property from being abstracted by his men. He came in again alone about four in the morning, and sat smoking his pipe until about eight, when, all our things being packed up, he went out to superintend the preparations for our departure. We then, on consideration, felt it would be prudent and proper to present him with a Dutch ducat for our accommodation. This sum, though not so large as to manifest our fears, was double the amount we were accustomed to pay. We accordingly sent out Ali to him with the money; but the man came back with the gold in his hand, stating that the Koord would not receive it from him. When we went out to mount our horses we tendered the coin ourselves, and he received it without hesitation, and with thanks, although his pride would not allow him to take it from the hands of one who was a Persian and a servant. He accompanied us on foot to the end of the village, and then indicating the road we were to follow, wished us a safe journey, made his salam, and returned.

While in the house of the chief we felt secure from every thing but the little thieveries which his people might be able to commit without his connivance. But, when we had left, we were not without apprehension that, either with or without his knowledge, we might be pursued and plundered by some of the men with whom we had not eaten. Nothing of the kind occurred, however, though we did not feel quite at our ease until Dahar was more than forty miles behind us.

Notwithstanding the vigilance of the chief while we were his guests, the men contrived in several instances to prove that we did not unjustly suspect them. One such instance may be mentioned. When the writer awoke in the morning he missed his handkerchief; and after a careful search perceived it, to his great surprise, infolding the head of a man who was moving about in attendance on the horses. This impudent parade of the stolen article seemed so strange, that, but for the singularity of the pattern, its identity would have been doubted. As it was, we mentioned it to the chief, and he spoke to the man, who affirmed that the writer had given it to him. This being denied, the chief ordered him to return it. He then unwound it from his head, and threw it down with an aggrieved and insolent air. There is another anecdote about the same handkerchief which seems worth relating here, though not in immediate connexion with our subject. Three days after leaving Dahar, we lodged in the house of a Turk at Alwar, and the next day reached Erzeroom. We had not long arrived when a man called with this handkerchief which had been left behind at Alwar, and which the Turk had sent after us all the way (twenty miles) to Erzeroom. The man, when informed by the servants that he had brought it to the right place, went away, without claiming or waiting for any remuneration for his trouble.

BURNING OF A SHIP AT SEA, AND SUFFERINGS OF THE SURVIVORS AMONG THE CREW.

WE are indebted to the insertion, in No. 184, of the curious and interesting narrative of the sinking of the *Royal George*, for the communication from another correspondent of the following authentic statement of the loss of a ship at sea, which occurred in a different manner, and the details of which, if they be less dis-

treassing than those narrated by Mr. Ingram, are so only because the number of sufferers was so much less than those who perished by the sinking of the *Royal George*.

The narrative which we are about to give is taken from a statement drawn up and authenticated by the signature of one of the survivors, a gentleman whose station and character would be sufficient guarantee for its correctness, if indeed the simplicity of the tale did not give to it the impress of truth. That gentleman, Mr. William Boys, was a native of Deal, in Kent, and descended from one of the most respectable families in the county. When only fourteen years of age, he went to sea, and, after serving ten years in the navy, embarked as second-mate in the ship *Luxborough Galley*, of 340 tons and 26 guns, employed by the South Sea Company for supplying Spanish America with slaves and European goods under the Assiento contract. After escaping in the manner we are about to narrate from the wreck of this vessel, he again entered the royal navy, and was constantly employed at sea during nearly thirty years, passing through different gradations of rank until he was commissioned to wear his broad pennant as commodore, on board the *Royal Sovereign* of 100 guns, and was appointed commander-in-chief of his Majesty's ships in the Thames and Medway. In 1761, he was made lieutenant-governor of Greenwich Hospital, and died in 1774, while holding that appointment. Three of his grandchildren, who have distinguished themselves in the naval annals of the country, now bear commissions as admirals in the service.

"On the 23rd of May, 1727," says Mr. Boys in his narrative, "we sailed from Jamaica to London, and, on the 25th of June were in latitude 41° 45' north, and longitude 20° 30' east, from Crooked Island. About half an hour past noon, the captain's cook discovered flames of fire through the lining of the fore-castle, and ran in consternation to the quarter-deck to give the alarm. At the same instant, the head of a puncheon of rum burst out with an explosion resembling the report of a cannon, which at once alarmed the whole ship's company. It appeared that two black boys had been sent by the steward to the store-room to draw off a bottle of rum, and observing some liquor on the deck, out of an unhappy curiosity to discover whether it were spirit or water, for the water-casks were all there, had put their candle to it, and in an instant the whole was in a blaze. Finding themselves unable to extinguish the flame, they left the place and hid themselves. The third-mate, the surgeon, the carpenter, and myself, got forward immediately, ripped off the tarpauling, opened the fore-hatchway, and then saw the lazaretto, or store-room, in a liquid fire. We went below and endeavoured to stifle the flame with swabs, rugs, blankets, our own clothes, and things of that sort; but finding all our efforts in this way ineffectual, we set the pump to work in the head, whence the water was handed down to us. In the mean time the captain indiscreetly ordered a scuttle to be cut through the deck of the fore-castle, with a view to pour water directly on the fire; but this made the flames rage with redoubled violence, and the whole fore-castle was soon in a blaze. We who were below, finding the fire to increase very much upon us, desired the people on deck to get out the boats while we would still endeavour to quench the flames, which they promised to do; but when we could stay no longer below for the great heat, and came upon deck, we found not the least preparation made to hoist out the boats, the captain and greatest part of the crew being on the quarter-deck crying to God for help without using any means to save themselves. When I afterwards questioned the captain, in the boat, as to the cause of this inactivity, he told me they expected every moment the powder would take

fire and blow up the ship. This powder was directly under the scuttle where the fire was raging, a circumstance we did not think of, or we might have done as they did. I immediately endeavoured to persuade the people that the boats were our only resource, and proceeded myself to prepare and apply the tackle to the yawl. I was hoisted out in this boat by desire of the chief-mate, for fear, when she should be in the water, the men should run away with her before the longboat could be got out. As she was lowering down, he handed me the oars, one of which fell overboard, so we had but three. By the time she was in the water, there were seven or eight men in her, whom I entreated to return to the ship again in order to get out the longboat, but they were unwilling to go back unless I would accompany them; upon which I took hold of a rope and was stepping into the ship when I observed the captain dropping into the boat. I pressed him to go back with me, but he told me the longboat's bow was on fire, and at that instant, by a roll of the ship, I perceived the flames coming up the fore-hatchway above the longboat's bow. At the same time it became necessary to put off the boat, as the people were crowding into her, and there were then in her twenty-two men and boys. As we passed under the ship's quarter, the captain called to the chief-mate, who was his brother, entreating him to jump into the water and swim to the boat; but he declined it, saying it was impossible the boat could swim many minutes, she having then her gunnel nearly even with the water, and the wind blowing very fresh.

"We left sixteen men and boys in the ship, who all perished. They attempted to get out the longboat, and had in part succeeded; but before they could get her over the side we saw her bow fall on the deck, probably they could not stand near her for the flames, or the tackle was burned and gave way. In somewhat less than half an hour after we quitted her the ship was all on fire as far as the bulk-head of the steerage, most of the unhappy men being then on the quarter-deck. Shortly after, the whole of this part burst up at once in a flame. The guns went off from time to time as the metal grew hot; but her upper works were wholly destroyed, and nearly three hours elapsed before the gunpowder took fire. The explosion rent her to pieces, and we saw no more of her. Could we have stayed by the ship we probably might have saved some provisions after she blew up, but we were obliged from the first to put the boat right before the sea with two oars to prevent her filling.

"As soon as our attention was disengaged from the ship and our comrades on board, we began to reflect on the horrors of our own situation. I came into the boat in my shirt and drawers, having thrown the rest of my clothes upon the fire. We had not time to take with us a morsel of victuals, or drop of drink; we had neither mast, sail, nor compass, and were at least 120 leagues from the nearest land. It blew and rained hard the two first days and nights, and the sea ran so high, that we were obliged to sit close together abaft, on the gunnel, to keep out the waves. At this time we might have saved a considerable quantity of rain-water, but the apprehension of immediate destruction obliterated every thought of providing for our future wants, and besides we had no vessels in which water might have been kept.

"On Wednesday it was fine weather, and then, as Providence had so wonderfully preserved us hitherto, we began to entertain some hope of deliverance, and contrived to make a sail by sewing together three frocks and a shirt with a sail-needle and some twine, which fortunately were in the pocket of one of the black boys. The broken blade of an oar, found in the boat, formed a tolerable yard. One of the oars served for a mast,

The halyards were formed of our garters, which were converted likewise into a tack and a sheet. We then ripped up the bottom-boards, under which we found several nails. A caulking-mallet was likewise discovered, and we were enabled to nail the boards to the gunnel, where the boat was straight, by way of wash-streak; and where she rounded abaft we nailed slips of the men's frocks, all which answered bravely.

"Thus equipped, we hoisted our sail and steered as well as we could to the northward, knowing Newfoundland to be in that quarter; for, on the day the ship was burnt, I had worked my day's work and pricked off my reckoning on the draught, and I took particular notice of our bearing and distance from Newfoundland. We judged of our course a few days by the sun, the stars, and the captain's watch, which went pretty well; but afterwards it proved foggy, and we could not then judge which way we went.

"On the fifth day it blew a storm, and about noon, when the gale was at its height, and our little boat in the utmost jeopardy, it was proposed to throw overboard the two black boys who set the ship on fire, in order to lighten the boat, which I opposed strongly; but, at the same time, thought it expedient to cast lots and give all an equal chance, which the captain would not consent to. However, we continued to talk of these measures till the evening, when John Horn, who had been delirious with terror from the time we entered the boat, and one of the negro boys, both died, and then, the boat being lightened and the wind abating, we had no further occasion to consider the subject. The next day, in the afternoon, three more died raving, and calling out incessantly for water, as was the case with all who died afterwards; and it was no small fatigue to us to restrain the poor wretches from jumping overboard to cool and refresh themselves in the sea. Our thirst now became intolerable. Every one but the captain, surgeon, and myself, drank sea-water, which, by a false taste, they thought to be quite fresh. We washed our mouths with it, but swallowed none. The sail was frequently lowered and drained of every drop of moisture we could wring from it; then we sucked it all over, as we did every one his neighbour's clothes when wet with fogs or rain. Twice we saved some water, to the quantity, on the whole, of about three-quarters of a pint a-piece; but these sparing and irregular supplies availed but little to alleviate the torments of thirst under which we languished.

"The sensation of hunger was not so urgent, but we all saw the necessity of recruiting our bodies with some more substantial nourishment, and it was at this time we found ourselves impelled to adopt the horrible expedient of eating part of the bodies of our dead companions, and drinking their blood. Our surgeon, Mr. Scrimmour, a man of the utmost humanity, first suggested the idea, and, resolute to set us an example, ate the first morsel himself; but, at the second mouthful, turned his face away from as many as he could and wept. With great reluctance we brought ourselves to try different parts of the bodies of six, but could relish only the hearts, of which we ate three. We drank the blood of four. By cutting the throat a little while after death, we collected a little more than a pint from each body. Here I cannot but mention the particular respect shown by the men to the officers, for the men who were employed in the melancholy business of collecting the blood in a pewter bason that was in the boat, and the rest of the people, would never touch a drop till the captain, surgeon, and myself had taken as much as we thought proper. And I can truly affirm, we were so affected by this strong instance of their regard that we always left them a larger share than of right belonged to them. This expedient, so shocking in relation, and so distressing to us in the use, was un-

doubtedly the means of preserving those who survived, as we constantly found ourselves refreshed and invigorated by this nourishment, however unnatural.

"We often saw birds flying over our heads, and fish playing round the boat's stern, which we strove to catch with our hat-bands knotted together, and a pin for a hook, baited with a piece of the dead men's bodies; but with all our contrivance could not catch either fish or bird.

"On the seventh day our number was reduced to twelve. At night the wind came up moderately at S.S.E., as we judged, and increased till it blew a storm, which continued with very thick weather till about four the next morning, when it cleared up and we found the wind to be about N.N.E., still blowing hard, and the sea breaking, in a tremendous manner, all around us; but it pleased kind Providence that no very heavy seas struck the boat, which must have occasioned instant destruction, though we shipped as much water as we could manage to bale out. During the gale we were obliged to scud before the wind, which carried us much out of our way, and greatly diminished our expectation of reaching land. Our only hope was to be seen and taken up by some vessel, if the weather should be clear, which, indeed, was seldom the case. When foggy, and in the night, we frequently made as loud a noise as we could, that we might be heard by any passing vessel. In the day-time, our deluded fancies often represented to us the forms of ships so plain and near us that we called to them a long time before we were undeceived; and in the night, by the same delusion,—the effect, probably, of fever—we heard bells ring, dogs bark, cocks crow, and men talk, on board of ships close to us; and blamed these phantoms for their cruelty in not attending to our distress.

"On the 5th and 6th of July, three more of our company died. In the afternoon of the 6th we found a dead duck, which was green and not sweet; but we ate it, and heartily praised God for it, though in a happier situation it would have been an object offensive and disgusting.

"July the 7th, in the forenoon, we took a formal leave of one another, and lay down in the bottom of the boat with a dead body, which we tried, but had not strength, to throw overboard, never expecting to get up again. We covered ourselves with the sail, which we had lowered some time before, through despair of its being of further use to us. After a while, finding myself uneasy, and wanting to change my posture, about one in the afternoon, I laid my hand on the gunnel to raise myself a little, and in the act of turning thought I saw land, but said nothing till I was perfectly satisfied of its reality, having frequently suffered the most grievous disappointments in mistaking fog-banks for land. When I cried out 'Land! Land!' and we were all convinced that it was so, good God, what were our emotions and exertions! From the lowest state of desponding weakness we were at once raised to extacy, and a degree of vigour that was astonishing to ourselves. We hoisted the sail immediately. The boatswain, who was the strongest man in the boat, crawled to the stern and took the tiller. Two others found strength to row, from which we had desisted the four preceding days through weakness. At four o'clock another man died, and we managed to throw both the bodies overboard.

"The land, when I first discovered it, was about six leagues off. The wind was favourable, and, with sail and oars, we went three or four knots. About six o'clock we perceived some shallows in with the land. We steered for the nearest, and came up with her about half-past seven, just as she was getting under sail to carry in her fish. We halloed to them as loud as we could, and they lowered their sail to wait for us;

but, when we were close on board, to our great grief and astonishment, they hoisted their sail again and were going to leave us; our moans, however, were so piteous and expressive, that they soon brought-to and took us in tow. They mistook us for Indians, or rather, as they told us, did not know what to think of us, our whole aspect was so unaccountably dismal and horrible. They gave us biscuit and water, but the latter only was acceptable, having totally lost our appetite for solid food.

"At about eight in the evening we got on shore in Old St. Lawrence Harbour, on the western side of Placentia Bay, in Newfoundland, and were most kindly treated. They made chowder* for us, and gave us beer made of the tops of juniper, fermented with molasses. We lay all night before a large fire, expecting a good night's rest, but could get very little sleep on account of the violent pains all over us. Captain Killaway died about three o'clock in the morning, having been speechless thirty-six hours before. Our bodies were soon covered over with boils and sores, and it was eleven days before any of us could walk abroad.

"On the 20th of July we left St. Lawrence Harbour, and got to Placentia on the 24th, with our little boat astern, in which we went on board the *Ludlow Castle*, a man-of-war commanded by Captain John St. Loo, who entered us immediately for victuals, and gave us leave to live on shore at the kind invitation of the governor, who paid for the board of the surgeon and me at the tavern, and sent the rest to the barracks, where they were taken good care of, and recovered fast. When I told Captain St. Loo of the number of persons who came from the *Luxborough* in one boat he knew not how to give credit to my story; and one calm morning he offered as many men as could be safely stowed in her to be carried on shore, when they could crowd no more than twenty into her with any prospect of working the boat. But, alas! we were forced to lie on one another at first in the most uneasy situation till death made room for us. On the 4th of September, five of us (one went to New England) sailed for Biddeford, and arrived safely there on the 1st of October, after escaping great danger from the crazy state of the vessel. At Barnstable, the mayor paid our horse-hire to Ilfracombe. From thence we went by water to Bristol, where the merchants on 'Change collected money for our fare to London in the stage-coach, at which place we arrived on the 14th of October.

"The boat in which we were saved was sixteen feet long, five feet three inches broad, and two feet three inches deep, pretty sharp for rowing well, and made to row with four oars."

For the whole of his after-life, Mr. Boys was accustomed annually to commemorate his escape by acts of private devotion, and an almost total abstinence from food during twelve successive days, beginning with the 25th of June, and he besides adopted as a motto to his armorial bearings the legend, "From fire, water, and famine, preserved by Providence."

CORNISH FISHERMEN.

THE employment of the Cornish fishermen is of two kinds; the one, the daily, quiet one of catching fish for the home market; the other, the periodical and grand occasion of catching pilchards and mackerel for the foreign market. The home demand is not sufficient to require the active exertion of one-fourth part of the number of fishermen resident in the district; many of these, consequently, remain either very inactive employed, not employed at all, or employed in other kinds of labour, during the intervals of the pilchard and mackerel seasons. Indeed, all the various occupations formerly enumerated are occasionally blended in the practice of the same individual. Many of the miners are husbandmen, and not a few of them are both fishermen

* A mess made with the heads of cod-fish.

and sailors. "So true is this," says Pryce, "that in St. Ives and Lelant, during the fishing season, they are wholly employed upon the water, to the great hindrance of the adjacent mines; and when the fishing craft is laid up against the next season, the fishermen again become tinners, and dive for employment in the depths of the earth." In the ordinary proceedings of the domestic fishery there is nothing peculiar. Owing to the great mildness of the climate in the winter season, the Cornish fisherman is exposed to comparatively few hardships, and being well clothed and well fed, and exposing himself to no unnecessary risks, his health or his life but rarely suffers from the ordinary course of his employments.

In the pilchard season his exertions are often very great, but as this almost always happens in summer, there is even then seldom any risk of health. I have formerly adverted to the quantities of this kind of fish caught in this district; it is proper, in this place, to give a brief account of this extensive and important fishery, as it is a species of employment which, both immediately and in its consequences, must exert an important influence over the health of the natives of the district. The precise region whence the shoals of pilchards that visit this coast come from is unknown; but the fact that the coast of Cornwall is the part of Great Britain where they first make their appearance, and that they subsequently are to be found on the western coasts of France and Spain, seems to prove that their course is from the west. They commonly reach Cornwall about the middle of July, and usually remain there until October. But both the period of their arrival and departure, and also the course they take, are uncertain, and have varied greatly in different years. Fifty or sixty years since, they remained on the coasts till Christmas, and the fishermen were engaged in their capture five or six months, but now the season does not last more than two or three months. Some years ago, indeed, as was formerly observed, they either did not appear at all on the Cornish coast, or only for a few weeks, or even days. In former years they always appeared first on the northern coasts of Cornwall, towards the east, from whence they proceeded westward, round the Land's End, and then eastward along the southern coasts. Lately, however, they have, on some occasions, scarcely touched on the northern coast, but have made their first appearance on the eastern parts of the south coast. When the shoals make their appearance, the fishermen are directed to them by persons stationed on the neighbouring heights, who are called *huers*, from their raising a *hue*, and who announce the approach of the prey by the cry of *huera*. In a moment every man is at his post, and all is activity and eager expectation. The proper place where the nets should be cast or shot being ascertained, the boat, containing the great net, or *stop seen* (sein), as it is called, and which is often 300 fathoms long and 17 fathoms in depth, is rowed round the shoal, the net being at the same time thrown into the sea by two men—a work which is performed with such dexterity that, in less than four minutes, the whole enormous net is shot, and the fish enclosed; the ends of it being then fastened together it is moored, or, where the shore is sandy and shelving, drawn into shallow water, the bottom of the net being kept to the ground by leaden weights, while the top is buoyed up with corks.

The quantity of fish thus inclosed and captured is sometimes enormous; one net has been known to inclose, at one time, as many as 1200 hogsheds, amounting to about three millions of fish. The inclosed fish are removed at leisure from their fold into boats, by means of small nets, by which a portion of the fish is separated from the main body and drawn up to the surface; they are then conveyed on shore to be cured or salted in cellars, and after remaining there for five or six days, they are packed into hogsheds for exportation. The broken or refuse fish are sold for manure, and when mixed with sand, soil, or sea-weed, constitute a valuable and lasting compost. It is a common saying in the district, that a single pilchard will fertilize a foot square of land for several years.—*Forbes's Medical Topography of the Land's End.*

HADDON HALL.

HADDON HALL is situated about two miles south of Bakewell in Derbyshire, on a bold eminence which rises on the east side of the river Wye, and overlooks the pleasant vale of Haddon.

The high turrets and embattlements of this mansion, when beheld from the distance, gives it the resemblance of a fortress. It consists of numerous apartments and offices, erected at different periods, and surrounding two paved quadrangular courts. The most ancient part is the tower over the gateway, on the east side of the upper quadrangle, and was probably built about the reign of Edward III.; but there is no evidence by which its precise date can be ascertained. The chapel is of the time of Henry VI., and the painted glass in one of the windows affords the date "Millesimo ccccxxvii," or 1427: and the tower at the north-west corner, on which are the arms of the Vernons, Pipes, &c., is nearly of the same period. The gallery was erected in the reign of Queen Elizabeth, after the death of Sir George Vernon; but no part of the building is of a date later than the sixteenth century.

The principal entrance, at the north-west angle, is under a high tower, through a large arched gateway that leads by a flight of angular steps into the great court. Near the middle of the east side of the latter is a second flight of steps, communicating with the great porch, over the door of which are two shields of arms carved in stone. On the right of the passage leading from the porch is the Great Hall, having a communication with the grand staircase and state apartments; and on the left, ranging in a line, are four large doorways, with great pointed stone arches, which connect with the kitchen, buttery, wine-cellar, and numerous small upper apartments that appear to have been used as lodging-rooms for the guests and their retainers. In the kitchen are two vast fire-places, with irons for a prodigious number of spits, various stores, great double ranges of dressers, an enormous chopping-block, &c. Adjoining the kitchen are various lesser rooms, for larders and other purposes.

The Hall itself must have been the great public dining-room, for there is no other apartment in the building sufficiently spacious for the purpose. At the upper end is a raised floor, where the table for the lord and his principal guests was spread; and on two sides is a gallery supported on pillars. From the south-east corner is a passage leading to the great staircase, formed of huge blocks of stone rudely jointed; at the top of which, on the right, is a large apartment hung with arras, and behind it a little door opening into the hall gallery.

On the left of the passage, at the head of the stairs, five or six very large semicircular steps, formed of solid timber, lead to the Long Gallery, which occupies the whole south side of the second court, and is 110 feet in length and 17 wide. The flooring is of oak planks, which tradition states to have been cut out of a single tree that grew in the garden. The wainscoting is likewise of oak, and is curiously ornamented. The frieze exhibits carvings of boars' heads, thistles, and roses. In the midst of the gallery is a great square recess, besides several bow windows ornamented with armorial escutcheons. Near the end of the gallery there is a short passage, that opens into a room having a frieze and cornice of rough plaster, adorned with peacocks' and boars' heads in alternate succession: an adjoining apartment is ornamented in the same manner; and over the chimney is a very large bas-relief of Orpheus charming the beasts, of similar composition. All the principal rooms, except the gallery, were hung with loose arras, a great part of which still remains; and the doors were concealed everywhere behind the hangings, so that the tapestry was to be lifted up to enable a person to pass in and out; but, for the sake of convenience, there were great iron hooks, (many of which are still in their places,) by means of which it might be occasionally held back. The doors being thus concealed, nothing can be conceived more ill-fashioned

than their workmanship. Few of them fit tolerably close; and wooden bolts, rude bars, and iron hasps, are in general their best and only fastenings.

The Chapel is on the south-west angle of the great court. It has a body and two aisles, divided from the former by pillars and pointed arches. The windows afford some good remains of painted glass. By the side of the altar is a niche and basin for holy water. An ancient stone font is likewise preserved there. Near the entrance of the chapel stands a Roman altar, about three feet high, said to have been dug up near Bakewell.

The Park, originally connected with this mansion, was ploughed up and cultivated about sixty years since. The gardens consist chiefly of terraces, ranged one above another, each having a sort of stone balustrade. The prospects from one or two situations are extremely fine; and in the vicinity of the house is a sweeping group of luxuriant old trees.

This manor of Haddon was, soon after the Conquest, the property of the Avenells, by the marriages of whose co-heirs it became divided between the families of Vernon and Basset in the reign of Richard I. But,

in the time of Henry VI., the estate had become the sole property of Sir Richard Vernon, whose last male heir, Sir George Vernon, who died in the seventh year of Queen Elizabeth, became so distinguished by his hospitality and magnificent mode of living, that he was locally called "the King of the Peak." By the marriage of one of this person's heiresses, who inherited the estate of Haddon, it came into the family of the Mannors, in which it still remains, being the property of the Duke of Rutland. The Hall remained the principal residence of this family until it was superseded, at the beginning of the last century, by Belvoir Castle in Lincolnshire. In the time of the first Duke of Rutland, (so created by Queen Anne,) seven score servants were maintained at Haddon Hall, and the house was kept open in the true style of old English hospitality during twelve days after Christmas. Since then the scenes of ancient hospitality and revelry have only occasionally been renewed within its venerable walls.

The above account of Haddon Hall is, with some abridgment and alteration, taken from 'The Beauties of England and Wales,' by Britton and Brayley.



[Interior in Haddon Hall.]

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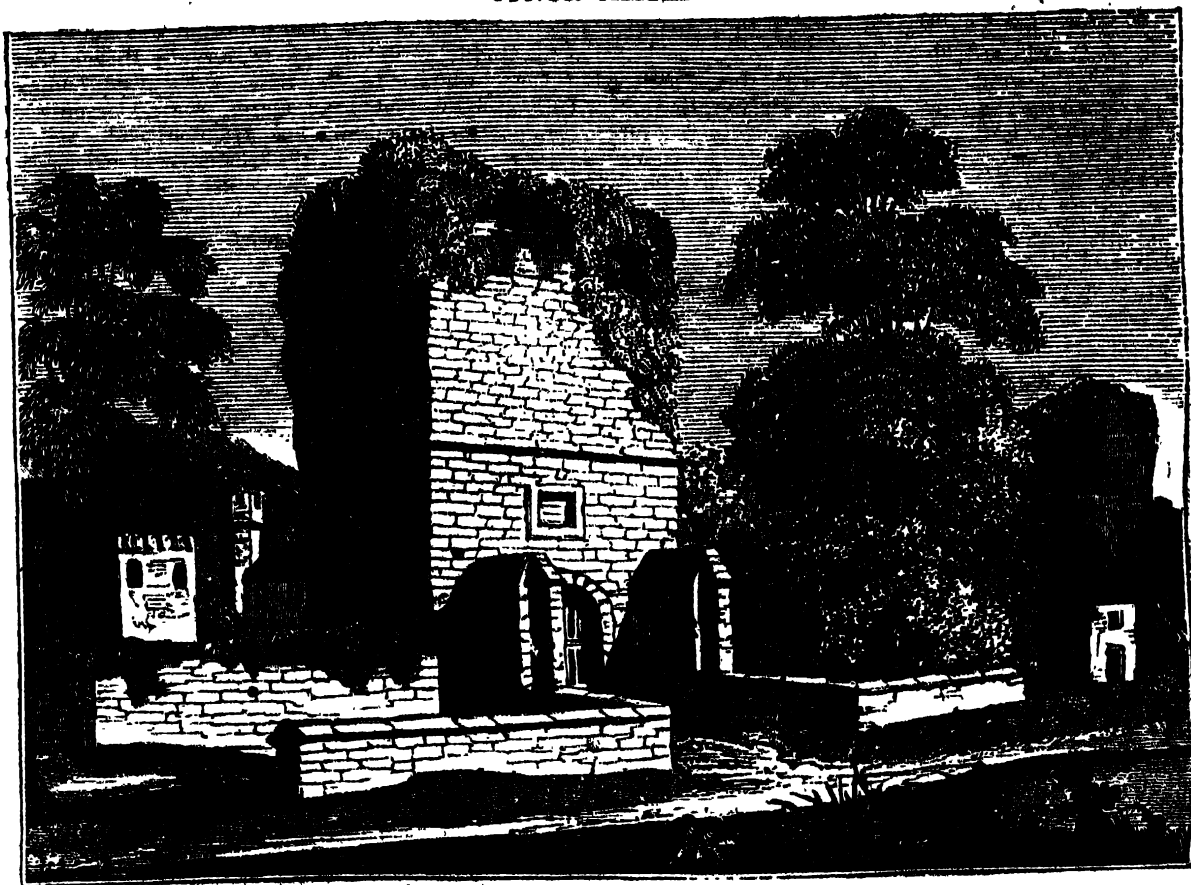
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UPNOR CASTLE.



[Remains of Upnor Castle.]

UPNOR CASTLE is situated on the western bank of the River Medway, a little below Chatham, on the shore opposite to it. According to Kilbourne, the castle was built by Queen Elizabeth, in the third year of her reign, for the defence of the river; "but as a fort," says Grose, "this place has never been of much consequence, especially as it was very injudiciously placed; and it has therefore very properly been converted to a powder magazine." It derives its chief interest, perhaps, from the fact that it is one of the last, if not the last, places of defence in England built on the principle of the ancient castles.

It is built chiefly of stone. Its external figure is a parallelogram, much longer than broad, the largest side facing the water. It has two towers at the extremities, the southernmost of which is appropriated to the use of the governor, but on account of its unsuit for his reception he never resides there: the entrance is in the centre of the west side. On the east side, next the river, are the remains of some stone walls, which seem to have formed a salient angle, like a modern ravelin. Here, probably, was a platform and battery, but the spot is now covered by high palisades, with a crane for shipping powder. Hasted said, more than forty years since, that there had not for many years been a gun mounted on the castle for service, nor indeed a platform to receive one. In the military establishment for 1659 the pay of the governor was only 5s. a day; and besides him, the garrison consisted

of a gunner, a servant, two corporals, one drummer, and thirty soldiers, with an allowance of 8d. a day for fire and candle. On the top of the bank, a small distance south-west of the castle, there is a modern-built barrack, capable of containing a company, where there is usually a subaltern's party of invalids; but when there is a camp on the opposite shore, or soldiers in the barracks at Chatham, as we believe is now generally the case, the duty of the castle is done by a detachment from thence: the gunners are also lodged there, and the storekeeper has a house and garden close behind the wall. The present salary of the governor of Upnor Castle is 10s. a day, and under his orders are all the forts of the Medway, except Sheerness; but they are nearly all of them in much the same condition with Upnor itself.

The only period at which this castle proved of any utility was in the reign of Charles II., in June, 1677, when the Dutch, under the famous Admiral De Ruyter, suddenly appeared at the mouth of the Thames during a protracted negotiation, and detached his Vice-admiral, Van Ghent, with seventeen of his lighter ships and eight fire-ships to sail up the Medway. Van Ghent took the fort of Sheerness with little difficulty, and, after destroying the stores, made dispositions to proceed up the river. In the meantime Monk, Duke of Albemarle, made every effort that the suddenness of the surprise would admit to render the attempt abortive. He sunk several ships in the channel of the river, and

drew a chain across, behind which had placed the *Unity*, the *Matthias*, and the *Charles the Fifth*,—three large men-of-war that had just been taken from the Dutch, who were then advancing very fast, and, having the advantage of wind and tide, passed through the sunken ships and broke the chain. The three ships that guarded it were instantly in one tremendous blaze; and Van-Ghent continued to advance until, with six men-of-war and five fire-ships, he came opposite Upnor Castle; but he there met so warm a reception from Major Scott, the commandant of the castle, and Sir Edward Spragge, who directed the battery on the opposite shore, that he thought it best to draw off his ships having received considerable damage. On their return, however, they burnt the *Royal Oak*, the *Great James*, and the *Loyal London*. The former was commanded by the brave Captain Douglas, who, in the confusion of the day, had received no directions to retire, and who perished with his ship. His last words were, "It never shall be said that a Douglas quitted his post without orders."

OLD TRAVELLERS.

WILLIAM DE RUBRUIQUE.—No. I.

THIS very distinguished old traveller, who explored Tartary and several countries of the East long before Marco Polo, was born in Brabant about the year 1230. Pits, in his curious work of *British Biography*, says he was an Englishman; but, from all we have been able to ascertain, we have no right to claim him as a countryman. His real name was Ruysbroeck, which, according to the fashion of the times, he latinized into Rubruquis. He entered a convent of friars of the Minorite order early in life; and shortly after his novitiate was passed and he had taken his vows and been ordained a father or priest, he quitted Europe and went to the Holy Land.

Palestine and Syria were then the great points of attraction to religious, enthusiastic, and enterprising men; and the recent, though short-lived, successes of the fourth crusade under the French king Louis IX., or St. Louis, were, at the moment when Rubruquis first contemplated his pilgrimage, reviving the hopes of the Christians of Europe, that the country where their religion originated would be recovered from the Crescent and restored to the Cross.

It appears, however, that when Father William reached Syria, Louis had been already defeated, and was then a prisoner to the Mohammedans. This pious king, who had been told some extraordinary stories about the existence of a great Christian people in the wilds of Tartary, governed by a Roster, or Priest John, had sent in that direction some monks as envoys, and to solicit an alliance and co-operation against the unbelievers of Asia, before Rubruquis' arrival in the East. These envoys returned without performing a sixth part of the journey set down for them, and without producing any favourable impression on such of the haughty Tartar khans as they were permitted to communicate with. Not discouraged by this ill success, and still as far as ever from being convinced that this great Christian people, and this Roster John, were mere visions, St. Louis resolved to send another embassy to Tartary, and appointed Rubruquis, Friar Bartholomew of Cassano, and a certain Friar Andrew to this difficult and dangerous mission.

There is some obscurity on this point, probably arising simply from a mistake in date made by the compiler of his manuscript; but in the first, and all the other editions and abstracts we have seen, Rubruquis is made to say that he began his journey in 1253, in which King Louis was still a captive; and he (the monk) only twenty-three years old. A more correct

date might be 1255, or, perhaps, a little later*. But, after all, this is not a very important point.

Before his departure, Louis strictly enjoined him to write down everything he saw and heard among the Tartars; and, by conscientiously obeying this order, Rubruquis, though as a political and religious envoy he was not much more successful than those who had gone before him, brought back an immense deal of curious information on the subject of that nomadic people, which was new to Europe at the time, and which, after the lapse of six centuries, is still about the best and most correct picture we possess of Tartar life. The wandering tribes of that great race, which occupies so large a portion of the globe, have changed little since the thirteenth century; but few travellers have been among them in their native wilds since then, and those who have, like Marco Polo, John Bell of Anternomy, and Timkovsky, confirm most of Rubruquis' details.

Taking the date of the printed volumes before us, it was on the 7th of May, 1253, that Rubruquis entered the Pontus, the Euxine, or, as it is now more generally called, the Black Sea, from the side of Constantinople. On the 21st of the same month, he safely landed at Soldaia, near Cherson (where our philanthropist, Howard, died in 1790). But here the Friar's annoyances began.

King Louis being uncertain how the mission might succeed, and anxious to avoid committing his royal dignity, had instructed Rubruquis and his companions to give out that they were travelling on their own account, and at the instigation of their own views and hopes. The monks had so represented themselves; but, at Soldaia, people would not believe them, and hit upon the true story,—that they were sent as ambassadors from the Holy Land. Rubruquis kept to his story. He said, as a minister of the church of Christ, he had heard, in the Holy Land, and with infinite joy, that Sartach, a great Tartar lord, of whom he was in search, was a Christian and a foe to infidels; and that, seeing at the same time King Louis fighting against the Saracens in the Holy Land, he (Rubruquis) and his companions were going to Sartach, at their own instigation, to solicit his alliance.

As the Tartars of those days were as averse as their descendants of the present time (particularly the Tartars that rule China) to grant a passage through their country to any foreigners except such as were sent as ambassadors from kings, Rubruquis was obliged to acknowledge that he was the bearer of letters from his royal master, Louis, to the Khan Sartach. In another little trait the Tartars of old times also resembled the Tartars of our own day, for Rubruquis tells us that they never looked kindly on the stranger who went among them empty-handed. The monks had accordingly carried with them from Constantinople what they esteemed a good provision of dried fruits, sweet wines, and delicate biscuits, and of these they made presents to the great men at Soldaia. According to Rubruquis, he and his companions were received with much civility; but it appears to us, from the treatment they afterwards met with, that their presents were not considered as sufficiently valuable, or as betokening rank or consideration in those who made them. The monks, indeed, when pressed on other occasions for richer offerings, pleaded that, by their order, they were prohibited from possessing silver and gold, jewels, or precious raiment;—that they were exposed to poverty by a vow, and could neither receive nor give such things. This confession evidently did not raise them in the estimation of the Tartars.

Before leaving Soldaia, which is supposed to be the ancient Lagys, Rubruquis informs us that that city was the centre of a very considerable trade, and that St. Louis received his liberty in 1254.

the Russians, traversing Tartary, came there in great numbers to sell peltry. The merchants from Constantinople, and other ports now included in the Turkish empire, brought silks, cotton cloths, other manufactured stuffs, and aromatic spices; and these they exchanged at Soldais for ermines, martens, and other valuable furs produced in the market by the traders from Russia and Siberia. When the monks began their journey in search of the great Christian, Sartach, they were accompanied by the Tartars with a saddle-house species; in addition to which they had some covered carts, like those the Russians used to carry their skins to market. As these carts were drawn by oxen, they proceeded very slowly, but they were great conveniences in the houseless deserts they had to pass, the travellers sleeping in them at night.

In the third day of their journey from Soldais the monks fell in with the wandering Tartars, and Rubruquis, saying he thought himself "entered into a new world," proceeds to describe the novelties that struck him. His sketches have the same graphic power and brevity that characterize those of Marco Polo.

These Tartars had no fixed residences; their numerous tribes wandered as masters over an immense extent of country, the greater portion of which was in Asia, though a large part of Europe was also subject to them. Their moveable habitations and their flocks were found from the remote East as far as the left bank of the Danube. In summer, they travelled towards the mountains, or the cooler countries of the North; in the winter, they descended to the plains, or sought the warmer regions of the South. Wherever they went they carried their *all* with them, leaving scarcely a trace of their residence or existence in the places they abandoned. Their houses, if such they could be called, went upon wheels, and were drawn from place to place by oxen. They were made of wattled rods and wicker-work, and in form were not much unlike our common bee-hives. There was one door in front, with a felt curtain ornamented with painting. Rubruquis does not inform us as to the good or bad style in which they were executed, but he says they had much coloured felt, painted with vines, trees, birds, and beasts, for decorating their dwellings. Some of these travelling abodes were so large and ponderous that it required a whole herd of animals to drag them slowly along. The friar sometimes counted as many as twenty-two bullocks put to one house. These oxen were not harnessed in pairs, like our coach-horses, but drew eleven abreast. One man always stood on the waggon, in front of the house-door, to urge on the bullocks nearest the wheel, and another man or a boy, or frequently a girl, walked ahead of the leaders. The houses were so constructed that, at the end of a journey, they could be taken off the wheels and set down on the ground. On such occasions, the doors, from some notion of their religion or idolatry, were always turned to face the south; and the waggons on which they had been carried, and their attendant carts, were drawn up in two compact lines;—one in front, and the other in rear, of the habitations.

We have seen some fine old Dutch prints in which the artists have attempted to represent a line of these Tartar dwellings while travelling, and then again while dismounted and stationary. As the notions could only be taken from verbal descriptions, it is more than probable that the engravings are not altogether correct, but the scenes they offer are animated and picturesque in the highest degree. The dismounted houses, with their parapets of waggons, look like little fortresses;—numerous flocks are scattered far around, and near at hand the patient camels and oxen ruminate, and the horses are tied, each by one leg, to small stakes driven into the ground. In the middle distance men are seen scouring across the plain, on long-tailed and

long-maned horses, and another wheeled moving town appears in the horizon.

One Mongol, a rich Tartar, often had as many as a hundred of these waggon-houses, in which he carried about his many wives, his children, and all their female attendants. Rubruquis says that, when the camp was formed, the house of the first wife was placed to the west, and all the others, according to their occupants' degree, extended in one line eastward, so that the last wife was to the east, or left of all;—that between the houses of each wife there was the space of a good stone's throw, so that the station of a great Tartar appeared like a town;—but one in which there were very few men. He adds that some of the married women had "most beautiful" waggons and houses made for themselves, and regrets that his ignorance of the art of drawing prevented him from giving King Louis a proper notion of them. We may conclude, from this and similar assertions made by the worthy monk, that the wandering Tartars were far removed from utter barbarism. Each house was accompanied by one or more large chests, which might be called the family store-room and treasury, for in them were deposited the household goods and chattels and all their owner's valuables. These chests were square, made of small split wicker, with an arched lid or cover, and a small door at the front end. They were well smeared over with suet, or sheep's milk butter, to keep out the rain, and were also fancifully painted, and ornamented with feathers in parts. They were fastened to carts much higher from the ground than the waggons that supported the dwelling-houses, and, unlike them (the houses), they were never taken off their wheels. These carts were not drawn by bullocks, but by camels. They could thus ford the smaller rivers of Asia without injuring or wetting their contents.

The old traveller goes on to inform us that within their dwellings they had always certain *lares*, or household gods, which were nothing more than little images or puppets made of felt. Near the door of every house there was a figure with a cow's udder—the guardian spirit of the women who milked the kine; and opposite to it was another figure having the udder of a mare—the tutelary divinity of the men who milked the fiercer animals, the mares. According to the Tartars, it was an unpardonable effeminacy for a man to milk a cow, and for a woman to milk a mare was equally unseemly. Among them, the grand distinction between the two sexes lay in this.

With the milk of their mares, they made a fermented liquor called Cosmos, which was the only drink they cared for during summer. The milk was thus obtained and prepared: They tied the young foals of the mares that were to be milked to a long line fastened at each end to a post fixed in the ground. The mares would thus stand quietly near their young ones and allow themselves to be milked. If, as it sometimes happened, a mare proved unruly, her colt was brought to her and allowed to suck a little, after which the man could generally succeed in milking her. When a good quantity of milk was procured, it was poured fresh and foaming into a large skin bag. The bag was then beaten with a wooden club until the milk it contained began to ferment and acquire a certain sourness. After the bag was shaken a little, it was coagulated again in the same manner until butter was formed. The liquid part was then fit for drinking. Our traveller says that he found it an exceedingly pleasant beverage, and of a diuretic quality, exhilarating to the spirits, and even intoxicating to weak heads;—that it was pungent to the taste "like raspberry wine," but left a flavour on the palate "like almond milk." Cara-cosmos, black cosmos, a drink reserved for the grandees, was produced by prolonging the beating of the bag con-

taining the mare's milk until all the coagulated portions subsided to the bottom like the lees of wine.

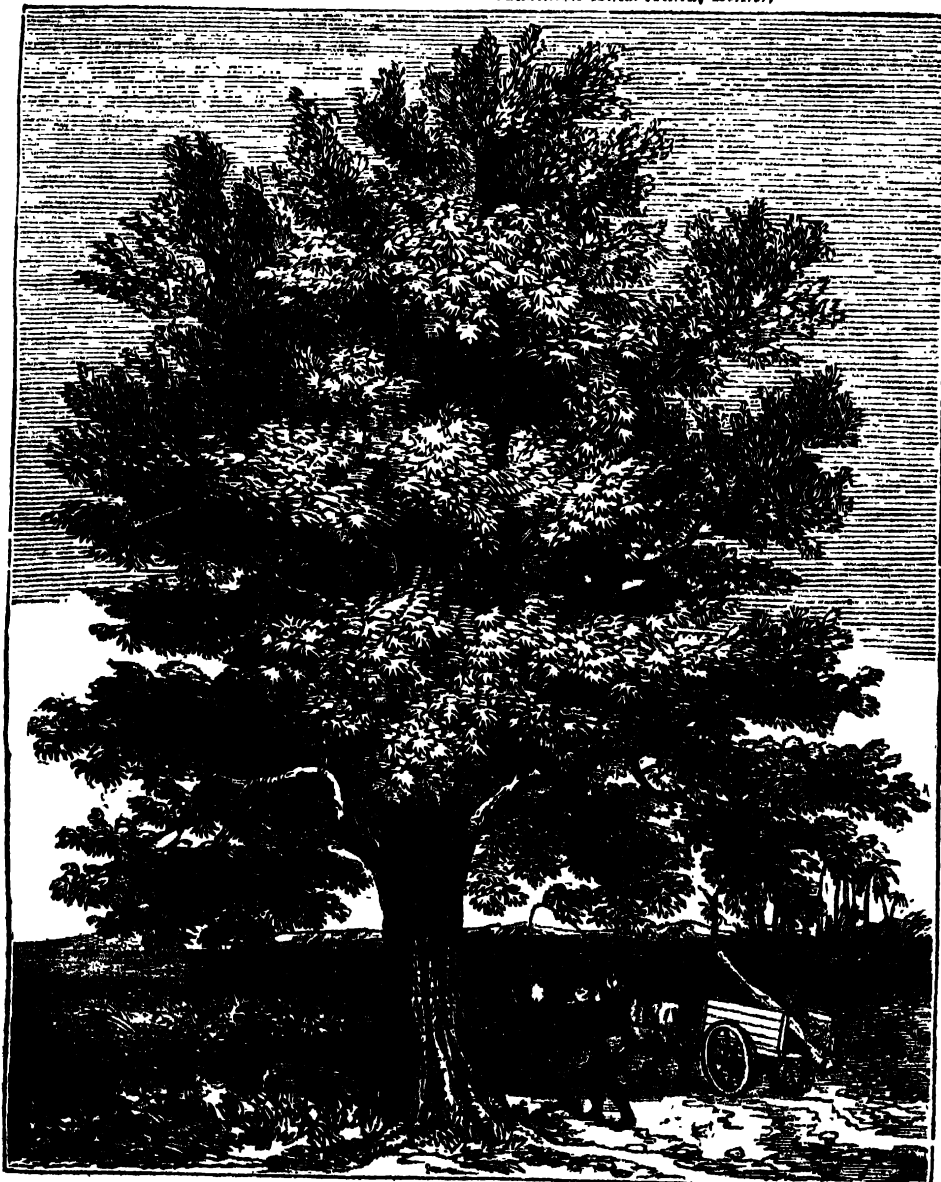
The Tartars paid their taxes, or tribute, to their lords, in *cosmos* and *cara-cosmos*. According to Rubruquis, the great Baatu received the daily produce of 3000 mares, besides a quantity of white *cosmos* from others of his vassals. A bowl of *cosmos* almost always stood on the threshold of every rich man's house. The Tartars often drank of it to excess, and, on grand occasions, they always got drunk to music, for a minstrel stood by the bowl and regulated the libations. Rubruquis says he saw no citterns, lutes, or viols, such as were used by Europeans in those days, but that they had many other instruments which we had not. At their great feasts, all the guests clapped their hands and danced to the music,—the men before the giver of the feast, the women before his chief wife. The master of the house, like Parson Trulliber*, always drank first. The instant he put his lips to the *cosmos*, his cup-bearer cried out aloud "Ha!" and the musician struck up *con fuoco*. When the entertainer had finished his draught, his cup-bearer exclaimed "Ha!" as before, and the music was hushed. Then, after a pause, all

* See 'Joseph Andrews.'

the guests, the women as well as the men, drank round in turns, with music to every draught, and a pause and a silence after each. The descriptions given by John Bell, and other later travellers, of the feasts held at the court of the emperors of China, who, as our readers must bear in mind, are Tartars and not Chinese, resemble very closely this account of Rubruquis. In the court there is less coarseness and excess, and infinitely more pomp, than in the Tartar camp; but the mode of drinking, the cries, the music, the pauses between, are the same in both.

Our friar says that, at the feasts in the desert at which he was present, the Tartars of both sexes generally seemed to try who could drink most, and that they always drank very foully. Their method of pressing a person to drink was to seize his ears and pull them forcibly. Though so much addicted to mare's milk, they seem to have had no objection to the monk's sweet wine. He tells us that, on one occasion, when claiming hospitality, he was asked for a present,—that he gave the master of the house one bottle of wine,—that the Tartar emptied it in a trice, and then demanded another bottle, "because," said the nomadic logician, "a man never enters another man's house on one leg alone."

THE MAMMEE-TREE.—(*Mammeu Americana*, Linn.)



The mammee-tree belongs to the family of the *guttiferae*, the same with that of the *mangostan*. It is a native of the West Indies, where it grows to a large tree,—sixty or seventy feet in height. Browne states

that it is one of the largest in Jamaica; that it affords excellent timber, and abounds with a resinous gum. It is a handsome, straight-growing tree, with a spreading head; and the leaves are oblong and obtuse, with very many fine, closely-set, parallel veins. The fruit of the mammee is yellow, not unlike, either in shape or size, one of the largest russet apples. The outer rind, which easily peels off, is thick and leathery; beneath this is a second very delicate coat, which adheres closely to the pulp, and should be carefully removed before eating the fruit, as it leaves a bitter taste in the mouth, which, though not very strong at first, it is said will continue for two or three days. The seeds, of which there are two or three in the centre, are resinous and very bitter; but the pulp under the skin—which, when ripe, is of a deep yellow, resembling that of the finest apricot, and of considerable consistency—is very fragrant, and has a delicious but very peculiar flavour. It is eaten either raw and alone, or cut into slices with wine or sugar, or preserved in syrup. To people with weak stomachs it is said to be more delicious than healthful; but still it is highly prized, and abundant in the West India markets. A liquor called *San Creole* is also obtained from its flowers in Martinique by distilling them with spirits. The mammee was found by Don in the vicinity of Sierra Leone; but whether native there, or imported from America, cannot be ascertained.

It was introduced into England in 1735, and is cultivated as an evergreen exotic.



[Leaf, Flower, and Fruit of the Mammee.]

THE FUGGER FAMILY.

THE founder of the Fugger family was John Fugger, a weaver in a village near Augsburg. His eldest son John, likewise a weaver, obtained by marriage the rights of a citizen of Augsburg, and carried on a linen trade in that city, which was then an important commercial place. He was one of the twelve weavers who sat in the council. He died in 1409. His eldest son Andrew inherited and acquired such immense wealth that he was commonly known as the *rich Fugger*. His line became extinct in 1583. John's eldest son,

James, was the first Fugger who owned a house in Augsburg. He was also a weaver, but carried on a very extensive commerce. Three of his sons, Ulrich, George, and James, extended their business and strengthened the foundations of the family greatness. They married ladies of noble families, and were themselves ennobled by the Emperor Maximilian. The Fuggers rendered great services to the House of Austria, and Maximilian, who was often in want of money, always found them ready to assist him. For 70,000 gold florins, he pledged to them the county of Kirchberg and the lordship of Weissenhorn for ten years; and, on eight weeks' notice, they raised 170,000 ducats to assist Pope Julius II. in carrying on the war against Venice. James attended to mining. He farmed the mines of Schwartz in the Tyrol, and became immensely rich. He built the magnificent castle of Fuggernau, in the Tyrol, and died in 1503. The Emperor Maximilian attended his funeral in person. The Fuggers continued to work these and other mines, by which the family wealth was greatly increased, and their goods were sent to every country. The family reached its greatest prosperity in the reign of Charles V. All its wealth had fallen to George, who had two sons, Raymond and Anthony. When the Emperor Charles V. held the memorable Diet of Augsburg, he resided upwards of a year in the splendid house of Anthony, who had free access to his person, since his family often supplied the deficiencies of the imperial treasury, and the emperor relied much upon their assistance in his exigencies. He created both the brothers counts and bannerets,—he invested them with the domains which had been mortgaged by Maximilian,—he granted to them a seat among the counts in the imperial diet, and bestowed upon them princely privileges. About five years after he conferred on them the right of striking gold and silver coins, which they exercised five times in the course of the seventeenth century. Anthony Fugger left, at his death, 6,000,000 gold crowns, besides jewels and other valuable property, and possessions in all parts of Europe and both Indies. It was of him that the Emperor Charles, when viewing the royal treasures at Paris, exclaimed,—“There is at Augsburg a linen weaver who could pay as much as this with his own gold!”

“This noble family,” says the ‘Mirror of Honour,’ “contained, in five branches (in 1619), forty-seven counts and countesses, and, including the other members, young and old, about as many persons as the year has days.” Even after they became counts, the Fuggers continued their commerce; and their wealth became such that, in ninety-four years, they bought real estates to the amount of 941,000 florins, and, in 1762, owned two counties, six lordships, and fifty-seven other estates, besides their houses and lands in and around Augsburg. They had collections of rich treasures of art and rare books. Painters and musicians were supported, and the arts and sciences were liberally patronised, by them. Their houses and gardens exhibited the finest examples of the architecture and taste of the times, and their distinguished guests were entertained with regal magnificence. When Charles V., after his campaign to Tunis, paid a visit to Count Anthony, the latter kindled a fire of cinnamon wood in his hall with the emperor's bond given him for an immense sum, which he had supplied for the expenses of the expedition. While the industry, the prudence, the honours, and the influence of the Fugger family are thus mentioned, their benevolence, their charity, and their zeal to do good and to relieve the distressed, must not be forgotten; but it would be hard to enumerate all the hospitals, schools, and charitable institutions which they founded.

The Fugger family ultimately became divided into two lines,—that of Raymond and that of Anthony.

Each has been subdivided into several branches; but they all style themselves "Counts Fugger of Kirchberg and Weissenhorn." The Kirchberg-Weissenhorn branch of the Raymond line owns the county of Kirchberg and four lordships, with above 14,000 tenants, and 80,000 florins revenue. Count Anselm Maria, Prince of Babenhausen, was raised by the present emperor, in 1803, to the rank of prince of the empire (hereditary in his male heirs), and three imperial lordships which he held were erected into the principality of Babenhausen. He died in 1821. The principality of Babenhausen, the capital of which is the market-town of the same name on the Günz, contains 148 square miles and 11,000 inhabitants, and affords a revenue of 80,000 florins. When the Confederation of the Rhine was established, in 1806, this principality, with the other estates of the family, became a part of the dominions of the King of Bavaria; but the owners were allowed, by express treaty, to retain many of their privileges. The scattered territories of the counts and princes of the Fugger family are computed to amount, in the whole, at present, to about 440 square miles, with 40,000 inhabitants.

The monument of commercial industry and perseverance which the Fugger family presents would not be so singular in its splendour, were it less customary for the third and fourth generations to relinquish the pursuits by which wealth is acquired in the first and second.

Wild Dogs in Van Diemen's Land.—The 'Hobart Town Courier' states, that the ravages committed by the wild dogs on the sheep throughout the interior, which we noticed in a former Number, continue to be the subject of daily and increasing complaint. The rapidity with which these animals multiply, and the growing savageness of their nature, render them one of the worst scourges, as far at least as regards property and subsistence, that has yet visited this young colony. Indeed, the kangaroo dogs, or mongrels of the mastiff and greyhound, from which they have sprung, are in their wild state both fierce and powerful, and, congregating in parties as they do, are far more dangerous to man than so many wolves. In one or two instances, human life has already been put in danger by them. In further illustration of this subject, which is one of those we shall endeavour to keep in view, we may quote the following from the article "Ascension Island," in the 'Penny Cyclopædia':—"In order to destroy the rats with which the island was overrun, a number of cats were introduced, which, however, multiplying and becoming wild, proved very destructive to the young fowls and rabbits, so that the garrison have been compelled to call to their assistance a colony of bull-terriers to wage war on their combined enemies of the feline tribe." It seems to us not unlikely that, unless a proper check be kept on their increase, the terriers will become wild like the cats they were introduced to destroy.

CEMETERY OF PERE LA CHAISE.

THE burial-grounds which had been established outside the city of Paris before the custom of church interment came into use, gradually became enclosed within the walls by the extension of the city. Measures had, some years before, been taken to clear away the great cemetery of "The Innocents;" but the first general measure was adopted in 1790, when the National Assembly passed a law expressly prohibiting interment within churches, and commanding all towns and villages to discontinue the use of their old burial-places, and form others at a distance from their dwellings. During the revolutionary tyranny, which soon after commenced, when death was officially declared to be an eternal sleep, the dead were buried without any ceremony, and no memorials were erected to denote the spot where they lay, or "claim the passing tribute of a sigh." But, in the year 1800, a decree was issued by the Prefect of the department of the Seine, which ordained that three cemeteries should be enclosed for the

use of Paris, of a certain extent, and at a distance of one mile from the walls. In the centre of each a sort of chapel was to be erected, destined for the reception of the funeral procession, and for the celebration of the ceremonies preceding the interment. Six funeral temples were also to be erected in different parts of the city, to serve as depôts before the funeral; and regulations were prescribed, which, although good on the whole, appear to have been very generally disregarded. In 1804 an imperial decree was issued by one who was not accustomed to allow his orders to be trifled with. After renewing the former prohibitions against interments in cities and churches, this decree directs high ground, exposed to the north, to be chosen for cemeteries, in which every corpse was to be interred in a separate grave, from a metre and a half to two metres deep, and the earth to be well trodden down. There was to be a certain distance between the graves, which were not to be re-opened until after five years. Another imperial decree in 1811 consigned the whole funeral business of the metropolis to one undertaker-general, arranged funerals into six classes, and appointed a *tariff* whereby the expense of every separate article and assistant was determined; the sum total in either class might not be exceeded, but might be diminished if the family of the deceased chose to strike out anything in the list. The whole expenses of the first class amounted to 178*l.* 8*s.* 4*d.*; of the second to 75*l.*; of the third to 29*l.* 3*s.* 4*d.*; the fourth to 10*l.* 8*s.* 4*d.*; the fifth to 4*l.* 3*s.* 4*d.*; and the sixth to only 13*s.* 4*d.* This is the French law relating to burials, which is still in force in Paris.

The present cemeteries of Paris are five:—that of Père la Chaise, of Montmartre, of Vaugirard, of St. Catherine, and of Mont-Parnasse. They are laid out in a picturesque style; the monuments are generally in good taste,—better than is usually found in England; and many of the inscriptions are interesting and tender, though there is no lack of absurdities, vanities, and far-fetched conceits such as those which disgrace our own churches and churchyards. These cemeteries are considered as public promenades; parties are made to visit them; and in their neighbourhood taverns and other houses are established for the entertainment of those whom grief, curiosity, or recreation, attracts to the cemeteries. On Sundays, particularly, they are much resorted to by the inhabitants of the capital; and on All Souls' Day, which is appropriated by the Catholic Church to the commemoration of the dead, people visit the graves of their friends in mourning attire, and with forms of lamentation. It is necessary to state thus much generally concerning the cemeteries of Paris. The feelings by which men are governed are essentially the same in every nation, but our own national habits and modes of thinking will not lead us to desire that our burial-grounds should be so studiously picturesque or so obtrusively fashionable. All that is useful might be obtained without this, and all that is graceful and beautiful might be supplied.

Of the five cemeteries, that of Père la Chaise is the most considerable and interesting, and we have therefore selected it for particular description.

This tract of ground, which is on the north-east of the city, extending along the slope of a hill from Belleville to Charonne, was, in the early ages of the French monarchy, distinguished by the name of "Bishop's Field" (*Champ de l'Evêque*), and doubtless belonged to the Bishop of Paris. It subsequently passed through several hands, and was at length purchased, for about 7000*l.*, by the Prefect of the department of the Seine, to be converted into a cemetery. It then consisted of forty-two acres. M. Brongniart was the person appointed to adapt this spot to its new destination; and in drawing his plan he took care to preserve whatever could be rendered subservient to the

use or embellishment of the new establishment. To render access easy to different points, winding paths were formed, a wide paved road was opened to the spot where the mansion of Père la Chaise formerly stood, and cypresses and willows were intermingled with the shrubs and the fruit-trees. The cemetery, thus prepared, was consecrated early in 1804, and on the 21st of May in the same year the first corpse was interred.

The advantageous situation of this spot, upon the slope of a hill, surrounded by luxuriant valleys and rising grounds, with the fine and picturesque view it commands, occasioned such a demand for its graves that it has been enlarged until it now comprehends an extent of nearly one hundred acres. Properly, the cemetery of Père la Chaise is the burial-place of only the inhabitants of the fifth, sixth, seventh, eighth, and ninth wards of the city; but when a perpetual right in the ground for a grave is purchased, remains may be brought from any part of the city, or even of the kingdom. This privilege has been so extensively used, that the burial-ground which, by its regular destination, would have been principally occupied by the sober citizens of Paris, now contains the names of most of the illustrious dead of modern France. Hence no Parisian cemetery can be compared to this for the number and beauty of its monuments. Some of them, of large dimensions and elegant architecture, are in the form of temples, sepulchral chapels, funeral vaults, pyramids, and obelisks; while others present piers, columns, altars, urns, and tombs, variously formed and ornamented. Many are surrounded by enclosures of wood or iron, within which are planted flowers and shrubs, and near some of them benches are placed for the accommodation of the friends of the deceased and other visitors. A subterranean canal, which formerly conveyed water to Mont Louis House, still exists, and furnishes a sufficient supply to keep the plants and herbage in perpetual verdure. Some families pay an annual sum to the gardener for cultivating the shrubs and flowers which have been planted upon the graves of their departed friends.

It is impossible in this article to give even the most brief description of the numerous interesting monuments which the cemetery of Père la Chaise exhibits. That of Abelard and Heloise attracts the most attention, from its dimensions and beauty. Among the names commemorated by monuments are those of Laplace, Cuvier, Denon, Volney, and Monge; Fourcroy, the chemist; Bocage and Mentelle, the geographers; Langles, the Orientalist; * Molière; La Fontaine, the fabulist; St. Pierre, author of 'Paul and Virginia'; Talma, the actor; Haüy, who taught the blind to read by means of characters in wood; Sicard, the distinguished instructor of the deaf and dumb; Parmentier, to whom France is chiefly indebted for the general cultivation of the potato. Among military names may be mentioned those of Ney, Massena, Davoust, Caulincourt, Lauriston, Foy, Labédoyère. Among political names, Tallien, who for a time swayed the destinies of republican France, and

* We feel it quite in place here to mention a circumstance which was made known to the English public about fifteen years ago, in the 'Quarterly Review.' Many of our readers will remember the story of Young's Narcissa, who died in France.

"Denied the charity of dust to spread
O'er dust! a charity their dogs enjoy;
What could I do? what succour? what resource?
With none to privilege a grave I stole,—
More like her murderer than friend, I crept
With soft suspended step, and muffled sleep
In midnight darkness whispered my last sigh."

What a contrast to this "cursed ungodliness of zeal," formerly so rife in France, does the cemetery we are considering exhibit,—in which Catholics, Protestants, and Jews are alike interred, and have alike their monuments! But our present object is to mention that Talma and Madame Petit are stated to have sought for, found, and becomingly interred the remains of Narcissa.

Manuel, the parliamentary orator; and, among women, Madame Dufresnoy, the 'Tenth Muse'; Madame Cottin, authoress of the 'Exiles of Siberia'; the beautiful and accomplished daughter of Cuvier; Madame Blanchard, who perished in 1819 by her balloon taking fire; and Mademoiselle Raucourt, the actress, to whose interment in consecrated ground the clergy offered so much opposition as nearly to occasion a popular tumult.

It was stated in 1830 that upwards of 100,000 bodies had been interred in the cemetery of Père la Chaise. Of this number, the friends and families of 15,000 had erected monuments over their remains, of which 1,500 were rendered objects of more than ordinary attention by some striking peculiarity,—by their neatness or magnificence, or from the interest connected with the names they commemorate.

The cemetery is entirely surrounded by walls. The gate of the proper cemetery is in the centre of a semi-circular recess, decorated on each side with piers and funeral ornaments. On the gate is a Latin inscription from the Book of Job, xix. 25; on the right is another, from John, x. 25; and on the left, one from the Apocrypha, Wisdom, iii. 5. The chapel in the cemetery, for funeral ceremonies, is plain and neat, and receives light by a window in the centre of the roof: it is fifty-six feet in length by twenty-eight in breadth, and its elevation is about fifty-six feet. It is surmounted by a white cross, and stands at the extremity of the two principal alleys leading from the gate.

In the cemetery there are three kinds of graves:—first, the *fosses communes*, or "common trenches," four feet and a half deep, in which the poor are gratuitously interred in coffins placed close to each other, without any intervening space, but not upon each other. These trenches are re-opened every five years, that time being considered sufficient for the decomposition of bodies in this clayey soil; but the ground of each grave may be purchased either for a term of six years or for ever, by families, at the time the trenches are about to be re-opened, unless it should happen to be in the line of any contemplated road. It is not to be concealed that these immense common graves are very unpleasant features in the Parisian cemeteries, and would hardly be tolerated in this country, even under the ameliorated form in which they now appear. Their existence was forbidden by the law of 1804, which prescribed the depth and distance of the separate graves in which all bodies were to be interred. We cannot learn whether they continue by connivance, or whether the law has been repealed; they have, however, in their present form, probably resulted from the wish of the proprietors to perform, with the least possible expense, that condition for the gratuitous interment of the poor, in consideration of which they were allowed to receive the payments of the wealthy.

The second class of graves are the separate temporary ones, which, upon the payment of two guineas, are held for six years, but then revert to the establishment, even though monuments should have been erected over them. If, however, individuals wish to prolong their lease of the spot, they may do so by paying at the rate of two guineas for every five years; but if the payments are not duly made, the graves are re-opened, and the monuments restored to those by whom they were erected. It is optional, also, to purchase a perpetual right in the graves which were at first bought for only a limited period: in that case a discount is allowed of one of the sums of two guineas each previously paid for its temporary possession.

The third sort of graves are those in which the perpetual right is purchased in the first instance, when vaults may be sunk and monuments erected at pleasure. Not less than six feet six inches is granted for an adult, nor less than half that extent for a child under seven

years of age. But families are at liberty to purchase as much more as they please; and hence many families do possess large spots of ground in the cemetery. The price is five guineas for a square metre (of about 39½ inches), and fifteen shillings for the deed and registration of the sale. When a person desires to purchase ground, he applies to the keeper of the cemetery, who accompanies him to select such an unoccupied spot as

he may please. When a family wishes to construct a vault or tomb for the reception of the dead, the corpse is meanwhile deposited in a temporary grave, for the use of which, upon its removal, the sum of 1*l.* 3*s.* 6*d.* is paid; but this removal cannot take place without the special permission of the prefect of police, and in the presence of a commissary of police, who draws up minutes of the transaction.



[Père la Chaise.]

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THE BISON.



[North American Bison.]

THIS remarkable species of ox is peculiar to North America. Until of late years, it was very generally considered that the domestic ox, the wild bull (*urus*) of Europe and Asia, and the American bison were only varieties of the same species, or, in other words, that the domestic ox was the *urus* altered by civilization, and that the bison was the *urus* altered by climate. This was the opinion of Buffon, Pallas, and other distinguished naturalists. The identity of the *urus* and the bison being assumed, it became a question of somewhat difficult solution how these animals migrated from the old to the new world. Many ingenious theories were framed to meet the circumstances, but the necessity for these speculations has been superseded by the discovery made by Cuvier, that the bison of America is really a species distinct from the *urus*; and he has indicated the very important differences by which the distinction is established.

We may consider the bison as characterized by fifteen pair of ribs, (the wild bull has only fourteen,) and by the immense disproportion between its fore and hind quarters. The latter distinction is partly occasioned by the great hump or projection over its shoulders. This hump is oblong, diminishing in height as it extends backward, and giving a considerable obliquity to the outline of the back. The hair over the head, neck, and fore part of the body is long and shaggy, forming a beard beneath the lower jaw, and descending below the

knee in a tuft. The hair on the summit of the head rises in a dense mass nearly to the tip of the horns, and directly on the front is curled and strongly matted. The ponderous head, rendered terrific by its thick shaggy hair and streaming beard, is supported upon a massive neck and shoulders, the apparent strength of which is more imposing from the augmentation produced by the hump and the long full of hair by which the anterior parts of the body are covered. This woolly hair is remarkable not less for its fineness than its length. The difference between the winter and the summer coat of the bison consists rather in the length than in the other qualities of the hair. In summer, from the shoulders backward, the surface is covered with very short fine hair, smooth and soft as velvet. Except the long hair on the fore parts, which is to a certain extent of a rust color or yellowish tinge, the colour is a uniform dun. Varieties of colour are so rare among the species, that the hunters and Indians always regard any apparent difference with great surprise. The fleece or hair of a full-grown bison, when separated from the skin, is usually found to weigh about eight pounds, according to Charlevoix. The horns are shorter than in any other species, nearly straight, sharp-pointed, exceedingly strong, and planted widely asunder at the base, as in the common bull. The tail is almost a foot long, and terminates in a tuft which is black in the males and red in the females. The eyes are large and fierce; the

limbs are of great strength; and the appearance of the animal is altogether exceedingly grim, savage, and formidable. According to Hearne, the size of the bison is, on the average, less than that of the urus, but exceeds that of every other species of the ox. It has been known to weigh 1600 and even 2400 lbs.; and the strongest men are said to be unable, singly, to lift one of the skins from the ground. The female is much smaller than the male; she has not so much of the long hair in front, and her horns are not so large nor so much covered by the hair. The males and females associate from the end of July to the beginning of September; after which the females separate from the males, and remain in distinct herds. They calve in April. The calves seldom leave the mother until they are a year old, and sometimes the females are seen followed by the young of three seasons.

The bisons generally seek their food in the morning and evening, and retire during the heat of the day to marshy places. They rarely resort to the woods, preferring the open prairies where the herbage is long and thick. They also associate in vast troops led by the fiercest and most powerful of the bulls. In both these respects their habits differ from those of the urus, which leads a solitary life in the deepest gloom of the forest. The herds of bisons are frequently of astonishing density and extent. Mr. James says, that in one place at least ten thousand of these fine animals burst upon the sight in an instant. He adds, "In the morning we again sought the living picture, but upon all the plain, which last evening was teeming with noble animals, not one remained." Notwithstanding their terrible aspect, the bison is not an enemy of man, and will never attack him unless when wounded or at bay. During the season in which the males and females associate, and when the passions of the former are in full activity, the noise of the roaring of these immense herds resembles thunder, and the males often fight most desperate battles with each other.

While feeding, they are often scattered over a vast surface; but when they move forward in mass, they form a dense impenetrable column, which once fairly in motion is scarcely to be turned. They swim large rivers nearly in the same order in which they traverse the plains; and when flying from pursuit, it is in vain for those in front to make a sudden halt, as the rearward through dash madly forward, and force their leaders on. The Indians sometimes profit by this habit. They lure a herd to the vicinity of a precipice, and setting the whole in rapid motion, they terrify them by shouts and other artifices to rush on to their inevitable destruction. The chase of the bisons, indeed, constitutes a favourite diversion of the Indians, numerous tribes of whom may be said to be almost entirely dependent on these animals for all their necessities of life. They are killed either by shooting them, or by gradually driving them into a small space by setting fire to the grass around the place where the herd is feeding. They are much terrified by fire, and crowd together to avoid it; and they are then killed by bands of Indians without any personal hazard. It is said that, on such occasions, 1500 or 2000 have sometimes been killed at a time.

The flesh of the bison is coarser grained than that of the domestic ox, but is considered by hunters and travellers as superior in tenderness and flavour. That of the males is poor and the flesh disagreeable in the months of August and September. They are much more easily approached and killed than the females, not being so vigilant, but the females are preferred on account of the greater fineness of their skins and more tender flesh. The hump of the bison is highly celebrated for its richness and delicacy, and is said, when properly cooked, to resemble marrow. The Indian

method of preparing this delicacy is as follows:—The hump is cut off the shoulders, and a piece of skin is sewed over the severed part. The hair is then singed off, and the whole is ready for the oven. This is a hole in the earth, in and over which a fire has been burned; and into this heated receptacle the hump is conveyed, and covered, about a foot deep, with earth and ashes. A strong fire is again laid over the spot, and, supposing these preparations to have begun on the evening of one day, the hump will be ready for eating by the next day at noon. The tongue and marrow-bones are regarded by the connoisseurs in bisons' flesh to be the parts next in excellence to the hump. The skins of the bisons are of a loose and spongy texture; but when dressed in the Indian manner with the hair on, they make admirable defences against the cold, and may be used for blankets. They are called buffalo robes; the term buffalo being generally, but inaccurately, applied to the bison. The wool of the bison has been manufactured into hats, and has also been employed in making coarse cloth of a very strong and durable texture.

Vast multitudes of bisons are slaughtered every year; and it is to be deeply regretted that the white hunters and traders are in the habit of destroying these valuable beasts in the most wanton and unnecessary manner. It is common for such persons to shoot bisons, even when they have abundance of food, for the sake of the tongue or hump alone; or even for no other reason than because they come near enough to present a fair aim. It is, therefore, not surprising that, from all these causes of diminution, the bisons become less numerous every year, and remove farther and farther from the haunts of men. The numbers of this species still existing are surprisingly great, when we consider the immense destruction of them since European weapons have been employed against them. They were once extensively diffused over what is now the territory of the United States, except that part lying east of the Hudson's River and the lake Champlain, and narrow strips of coast on the Atlantic and Pacific. At the present time their range is very different; they are no longer found except in the remote unsettled regions of the north and west, being rarely seen east of the Mississippi, or south of the St. Lawrence. West of Lake Winnipeg they are found as far north as 62°; west of the Rocky Mountains it is probable they do not extend north of the Columbia river. American authorities assure us that the time cannot be far distant when the bisons, like the Indian tribes which hover near them, will have passed away.

It is stated in the 'Dictionnaire Classique d'Histoire Naturelle,' on the authority of Raffinesque, that the bison is domesticated in the farms of Kentucky and of Ohio. It there associates with the domestic cow, and the mixed breed have the colour, the head, and the shaggy front of the bison; but they are destitute of the hump, although the back is always sloped. They associate indifferently either among themselves or with the bisons and domestic cattle, producing new and fruitful races. The fertility of the cross-breeds does not, however, as Buffon imagined, prove the unity of species in the original parents, for there is scarcely a truth in zoology more evident, than that the bison and domestic ox are of species essentially different. We do not feel sure, however, that this domestication of the bison in Kentucky and Ohio is at present practised, though it might well have been so before the encroachments of man had driven them into the remote regions of the west and north. The 'Encyclopædia Americana,' our obligations to which in preparing this article claim acknowledgment, makes no mention of such a practice.

VEGETABLE ACQUISITIONS.

THE perusal of some Van Diemen's Land newspapers has lately drawn our attention very strongly to the extent in which civilization operates in enlarging the vegetable and other produce of a country beyond that which is indigenous to it. The state of that colony, with regard to its vegetable produce, enables us to perceive at once, without the intervention of traditional records, what the concentrated energies of civilization are capable of effecting in less than a single generation. In Europe, the prolonged period through which these effects have been gradually obtained, prevent the full efficacy of the immediate power of civilization from being so well apprehended. But it is the attribute of civilized man to desire to gather around him the things he has been accustomed to,—the good and pleasant things of other lands; and the means which he possesses of carrying such a wish into effect has, in the short space of thirty years, done for Van Diemen's Land more than, without such advantages, was done in this country in sixteen hundred. Nearly all the fruits of Europe had been successfully introduced there within seventeen years from the establishment of the first settlement at Risdon Cove; and those of this country have thrived particularly well. The case is the same with trees, shrubs, and flowers, which the colonists have imported from this country, many of which, though deciduous here, have there become evergreens. They are quite sanguine that the same will be the case with the honeysuckle which has been recently sent out, and the prosperity of which appears to be a matter of considerable interest in Van Diemen's Land. And now the colonists begin to reciprocate obligations with the mother-country. The 'Hobart Town Courier' says, "The superintendent of the Government Garden has sent home, in the finest and most healthy condition, 141 specimens, comprising sixty species, with their Linnæan names attached, of our most beautiful plants and shrubs, collected chiefly from Mount Wellington and the banks of the Huon river. They are intended for the Royal Gardens at Kew; and, as they are mostly of a hardy nature, although new to England, we doubt not they will thrive, and be generally admired." The same paper also recommends for exportation to this country the three plants of the genus *Hickea* as being well deserving a general trial for cultivation in England, as a substitute and variation in the hedge-rows which embellish and characterise this country, and expresses a conviction that it would thrive well and be a most desirable acquisition. It is very hardy,—growing among rocks and poor land in the highest and coldest regions of Van Diemen's Land. It is of quick growth, is evergreen, and the leaves being in the form of needles, stiff and pointed, make it an excellent and sufficient fence from man or beast, while the stem is as strong, woody, and rigid as the oak or hawthorn. In return for this kind interest in our behalf, it seems that Van Diemen's Land only desires that we will send out some of the favourite shrubs and flowers, both old and lately introduced, that are yet wanting there, such as the daisy, the violet, lily of the valley, snow-drop, thrift, myrtle, southernwood, guelder-rose, mountain-ash, birch, beech, cedar of Lebanon, laurustinus, and double-flowering plants in general. During the last year, 100,215 quarters of wheat were imported into this country from Van Diemen's Land, being, with one exception, the largest quantity imported from any one country. Within these few months an indigenous species of wheat is stated to have been discovered. Of this discovery the following account has been given in the local papers:—"Mr. Foster, of the Macquarie River, accompanied by his brother and Mr. Bates, has recently completed a tour of the northern and eastern coast of the island, exploring the several rivers from fifteen to twenty miles up their stream. What we look upon as the most interesting result of the journey is the discovery of an indigenous species of wheat, which grows in various parts near the coast to the north of St. Patrick's Head. It was unfortunately only in bloom when Mr. Forster saw it, and no ripe grains could be found from which it could be propagated, which, however, will, we hope, be the case by some future traveller, who may visit that part of the country when the grain is ripe. As this is the first of the cereal order of plants that has been found in Van Diemen's Land, its discovery is well deserving a place in the annals of the colony—unlike the common sorts of wheat, it seems to delight in poor soils, growing luxuriantly in banks of sand and shells." The colonists appear to have been no less successful in the naturalization of zoological than vege-

table specimens. They have all our domestic quadrupeds and birds, and are now endeavouring to introduce our game. The following paragraph from the papers already quoted refers to an attempt of this kind:—"Mr. Bi-dee has lately let loose upon his estate of Whitehills, at the Lovely Banks, three brace of pheasants, in the hope that they will be naturalized and propagate in the island. Persons who may accidentally meet with them in travelling through that part of the country will therefore, it is hoped, be careful not to molest or destroy them, for some years at least, until they have gained a footing, and become sufficiently numerous in the island. The birds were bred by Mr. Bisdee, to whom we consider the colony indebted for the great care and attention he has devoted to this desirable acquisition, and which have been attended with such success."

Self-Advancement.—"Mr. Ewing, senator from Ohio, in the United States, is perhaps the most conspicuous man of that state at the present time, unless Judge McLean be an exception. Although he has been in Congress but a single session, he has acquired a high reputation as a statesman. I should think him to be about forty. He is a self-made man,—a striking exemplification of what a man can do by merely personal effort. He is a native of this state, and was born poor. In his youth his principal employment was wood-chopping. Being very athletic, he excelled in the labours of the axe. At length, when he had grown up to early manhood, a desire for education was awakened in his mind. He directed his steps to this institution, [what institution is not specified,] where he completed his education preparatory to the study of the law. In term time he chopped wood at the college-door; and in vacation it was his custom to swing his axe upon his shoulder and go forth in search of a job, which he would accomplish, and return with fresh vigour at the commencement of next term. In this way he sustained himself while in college, and came out with a constitution as vigorous as when he entered. And now he is a senator of the United States."—*American Annals of Education.*

The Niagara Whirlpool.—This whirlpool, which is several miles below the fall, is one of those scenes which are too grand for description. Instances of accidents happening there can best convey an idea of the horrors of that dreadful abyss. The whirlpool is a large deep basin, in which the waters of the mighty St. Lawrence revolve in one perpetual whirl, caused by their being obstructed by an angle of the steep and dreary banks which overhang this dreadful place. The whirlpool, like the falls, has frequently caused the loss of human life; one instance of which I will here relate:—

"Mr. Wallace, the blacksmith, had a son, a fine youth, of whom he was exceedingly proud, and the lad one day went down to the whirlpool, and the current proving too strong for him, he was carried into the whirl. His poor distracted mother sat on the gloomy bank hours and days, and beheld the body of her own darling child carried round in a circle by the waters, sometimes disappearing for a time, and then coming up and revolving on the surface of his watery grave; and thus continuing for several days, no human aid being available even to obtain his remains. An acquaintance, who resides at the whirlpool, informed me, that in the course of five or six days, bodies which get into this dismal cauldron are carried down the river. It is usual for persons rafting timber from places between the falls and the whirlpool, to get off the raft before they come to the basin, first placing the raft in such a position as may best enable it to float down the stream without being carried into the whirl. On one occasion, however, one of the raftsmen refused to leave the raft—he was not afraid, all would go safe—entreaty was unavailing, and the raft, with the unfortunate, headstrong man upon it, made its way downwards, and was soon drawn within the fatal circle; around which, for three days and three nights, it continued to revolve; all the efforts of a thousand anxious spectators proved unavailing. The continual and sickening motion he underwent robbed the poor sufferer of all power to eat—sleep he could not—a dreadful death was before his eyes, so much the more terrible that it was protracted night after night in such a place. At last a man was found who ventured into the whirl as far as he could with hopes of life, a strong rope being tied round his middle, one end of which was on shore. He carried with him a line to throw to the raft—succeeded; the agonized sufferer fastened it to the raft, and in this way he was drawn on shore, and his life preserved."—*Men and Manners in America.*

THE ISLAND OF CAPRI.

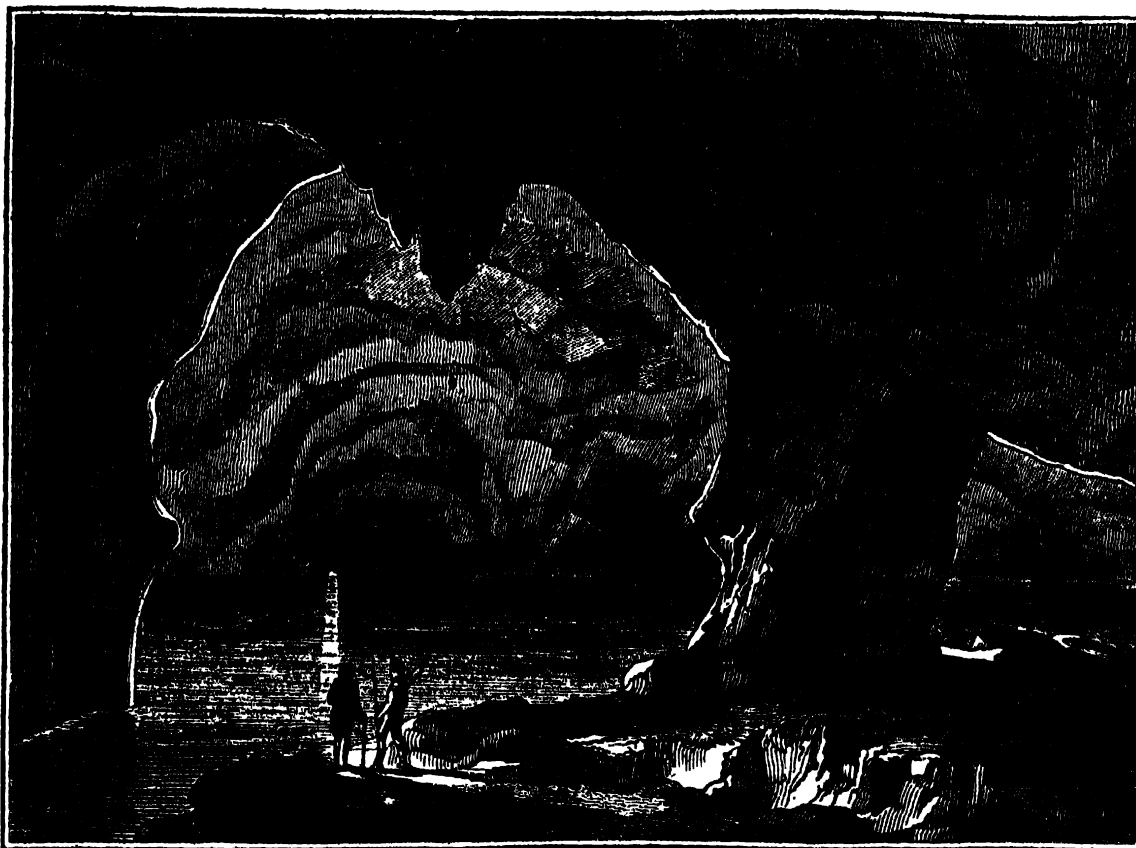


[Island of Capri.]

THIS most picturesque of islands is situated under the same meridian as the city of Naples, which it immediately faces, and from almost every part of which it is constantly visible. It is, indeed, one of the finest and most striking features of the rich and varied scenery which surrounds that capital. It stands at the entrance of the Neapolitan Gulf, almost on the line of the horizon; it is distant about two miles and a half from Cape Campanella, which terminates the bold promontory where Sorrento, Amalfi, and other towns of old fame, are situated; it is about twelve miles from Cape Miseno on the other side of the bay, and rather more than twenty from the city of Naples at the end of the bay. It is composed of hard, calcareous rocks, which are disposed in two picturesque masses with a considerable break or hollow between them. The highest of these two masses, which is to the west, and is called Anacapri, rises between sixteen and seventeen hundred feet above the level of the sea. The whole of the island, when seen at a little distance, looks so precipitous and inaccessible, that the stranger is disposed to wonder how the little towns and white villages he sees on the face of its cliffs ever got there. The colour of the masses of rock, when not affected by the glow of sunset, is a pale, sober grey. Tracing all the indents and sinuosities of the rocks, the circumference of the island does not exceed nine miles; yet within this narrow space is crowded an astonishing variety of scenic beauties, remains of antiquity, and historical recollections. The entire surface of Capri is wild, broken, and picturesque. The ancient name of the island was Capræ, and it is said it was so called from being inhabited by wild goats. According to antiquaries, its first human inhabitants were a colony of Greeks from Epirus, who, after many ages, were dispossessed by the citizens of Neapolis (Naples), which then formed part of Magna Græcia, and which, like all the places of note in that portion of Italy, owed its origin to the Greeks. The Roman Emperor Augustus seems to have taken entire

possession of the island for himself, and to have given the Neapolitan citizens lands in the neighbouring island of Ischia as an equivalent. Suetonius, the historian, has recorded a visit to Capri made by Augustus at the close of his life. With a shattered constitution and broken spirits, the world's master left Rome to find a place of quiet rest. Having recruited his spirits a little at Astura, on the shores of the Tyrrhenian sea, and near the mouth of the Tyber, he coasted Campania Felix, and, with a few chosen friends, arrived at Baiæ,—the Brighton and the Cheltenham united of ancient Rome. At Baiæ he took shipping for Capræ. As his galley shot across the Puteolan bay, it was met by a trading vessel from Alexandria in Egypt, the crew of which, aware of the monarch's approach, had dressed themselves in white, and crowned their heads with chaplets; and, when he was still nearer to them, they burned incense before him, swearing to live for him, and for him to navigate the seas. These testimonials of affection, or this adulation, cheered for a moment the dying emperor. He distributed money among his followers, desiring them to spend it in purchasing the Alexandrian merchandize. At Capri, Augustus, determining to forget the cares of government, gave up his whole soul to ease and affable intercourse; but this secession from toil, and the enjoyment of the tranquillity and the balmy atmosphere of the place, and the magical scenery around him, could not restore the old and worn-out man, who died shortly after at the town of Nola in Campania, and almost within sight of the island.

Capri is, however, much more memorable as being the constant retreat for several years of Augustus's successor, the execrable Tiberius. For the honour of human nature, it is to be hoped that those who have described the life and impurities of this systematic tyrant and debauchee have in some instances sacrificed truth to eloquence and effect;—but still enough will remain to excite our abhorrence, and our regret that his name should be associated with so beautiful a spot



[Caverna Azurra, in the Island of Capri.]

of earth. Shut up with the infamous ministers of his tyranny and lust in this rocky, inaccessible island, Tiberius ruled the vast Roman empire. It was here he committed or ordered some of the most atrocious of his cruelties;—it was here he wrote the ‘verbose and grand Epistle’ to the Senate at Rome, immortalized in its infamy by Juvenal;—it was here the arbiter of the fate of millions trembled in his old age at what might be his own destiny, and sat on “the august rock of Capreae with a Chaldean band*,”—a band of astrologers and impostors,—to consult the stars. He here built twelve palaces or villas, which were all strongly fortified, and erected many other works, the ruins of which still bear his name. The poor islanders of the present day, indeed, attribute every ancient building or fragment found on the island to “Tiberio Cesare,” whom they amusingly call “Emperor of Capri, and King of Rome.” It is also very amusing to hear how they talk traditionally of the tyrant, and of the deeds and vices recorded by Tacitus, Suetonius, and Juvenal.

The sail from Naples to Capri on a fine summer evening, when favoured by the *vento di terra*, or land breeze from the main, is one of the most delightful that can be imagined. The only accessible point in the island is called the *Sbarco di Capri*, or the landing-place. This is below the town of Capri, to which there is an ascent by means of a rude Cyclopean flight of steps, steep and rugged in the extreme. A few fortifications might render the island altogether inaccessible to an enemy, and entitle Capri to the name that was commonly given to it during the last war, viz. the Little Gibraltar. During a certain part of that long struggle, when the French arms had driven the king of the Two Sicilies from Naples to Sicily, the English held the island for that sovereign. We kept possession of it during the whole of the short reign at Naples of Joseph Buonaparte; but when he went to Spain, and Murat replaced him in Italy, it was attacked with an imposing force, and, being most absurdly defended, it fell into the hands of the French.

* Juvenal, Satire X.

The principal ‘town, or, as it is pompously called, the ‘metropolis of Capri,’ stands on a shelving rock towards the east of the island. It consists of a group of some two or three hundred small but tolerably neat houses, five or six churches and chapels, with a confined piazza, or square, in the midst. It is surrounded by vineyards and orchards, and some small olive-groves stand on ledges of the cliffs above it. There is only one more town in the island. This is called Anacapri, and is situated high up, on a narrow ledge of the western mass of rock that goes by the same name. The fishermen, sailors, and traders live in the chief town, and the lower parts of the island and Anacapri are almost solely inhabited by frugal, industrious peasants. It is one of the cleanest places that eye can behold. Its inhabitants communicate with the other town and all the east of the island by means of a flight of 536 steps, which zigzags in a curious manner down the face of a precipice. On a still loftier precipice, in the rear of the town of Anacapri, are the picturesque ruins of a castle of the middle ages.

The villages, if groups of three or four vine-dressers’ houses may be so called, are nestled here and there in little hollows, or are perched on steps in the cliffs, chiefly on the eastern half of the island. Wherever it has been possible to make them grow, they are surrounded by trees and vineyards. The persevering industry of the islanders is very admirable: by hewing out rocks here,—by piling them up to form terraces and retain the scanty soil there; by removing the earth from places where it was exposed to be washed away, and depositing it in well-defended, secure places, they have covered considerable patches of the northern front of Capri with beauty and fertility. The back of the island is so precipitous that it is altogether impracticable. The cultivable parts produce most kinds of vegetables and fruits, a small quantity of excellent oil, and wine in abundance. The wine, which is well known to all who have resided at Naples, is of two sorts,—Capri rosso and Capri bianco,—or red and white Capri. The quality of both is very good, being devoid

of that volcanic, sulphurous flavour common to most of the wines produced near Naples.

Quails form another important article of export. These birds of passage, which come in countless flights from the coast of Africa in spring, and return thitherward in autumn, are caught on the island in large nets spread out in hollows on the tops of the rocks, through which, season after season, the quails are sure to pass. In some years, as many as 100,000 of these delicate birds, without counting those consumed at home, have been sent to the Neapolitan market. Capri, which is now united to the see of Sorrento, once had a bishop of its own; and, in former days, that dignitary's revenue was derived almost entirely from the trade in quails.

In 1826 the whole population of the island amounted to about 4000 souls. There were two or three schools established by government. The people seemed very healthy, contented, and cheerful; free and equal in their intercourse with one another; and, like most islanders, much attached to the place of their birth. None of them could be called rich, even according to the low scale of that part of the world, but then very few were abjectly poor. Like the inhabitants of the contiguous peninsula, the Sorrentini, the Amalfitani, &c., the people of Capri invariably leave an agreeable recollection in the mind of the traveller.

The bold, perpendicular cliff at the eastern extremity of the island, which is correctly represented in our engraving, is the too celebrated *Saltus Caprearum*, over which, if history speaks truly, Tiberius was accustomed to have his tortured victims driven. The cliff still retains its name, Italianized, the islanders always calling it "*Il Salto*," or the leap. It rises seven hundred feet above the level of the sea. Not far from the brow of this cliff are very considerable remains of the *Villa Jovis*, one of the tyrant's twelve mansions, which all stood on this half of the island. The guides assure the stranger that some arched subterranean chambers, communicating with one another, that are found here, were the *torturing dungeons* of Tiberius. A fine mosaic pavement, some columns of *giallo antico*, a Greek statue of a nymph, with many cameos and intaglios, were found at the *Villa Jovis* many years since. Indeed, this small island and these Tiberian villas, of which we need not give a minute description, as little remains of them but sub-structures and dismal cells, have contributed largely to modern museums, churches, and palaces. The four magnificent columns of *giallo antico*—and all of one piece—that now decorate the chapel of the King of Naples in the palace of Caserta were dug up in one of the villas. A splendid mosaic, which Murat's wife, Caroline Buonaparte, caused to be removed and laid down as a flooring to her own boudoir in the palace at Portici, was found in another; and each of the villas, from amidst their crumbling ruins, have furnished rosso, giallo, and verde antico,—lapis lazuli, other beautiful stones, and a peculiar sort of marble called Tiberian, in wonderful profusion. Statues and busts in marble and bronze, and of exquisite workmanship—medals and bassi-rilievi, and other objects of art, have also been found and carried away in great quantities during the course of centuries. The mosaics and Corinthian capitals of the Tiberian villas are especially considered as models of perfection of their kind. All these twelve magnificent villas were included in a space, the circumference of which does not exceed four miles. The wealth of the emperor was employed for years in erecting and adorning them.

Since the writer of this short notice was last at Capri, the very curious cavern represented in the engraving has been accidentally discovered. Our description of it is taken from the last edition of Mrs. Starke's '*Guide to Travellers*.' The original drawing, made on the spot, from which our engraving is copied,

represents the water in the cavern and the stalactites on its roof as being tinged with the most exquisite blue. Hence its Italian name of "*Caverna*, or *Grotta Azurra*," or "*Caverna Blu*"—the Blue Cavern.

"A low-pitched and narrow aperture in the rocks west of the usual landing-place at Capri, and about one mile and a half distant from it, leads into an immense circular cavern, recently discovered—well worth notice, and distinguished by the name of '*La Grotta Azurra*.' Persons who visit this sapphire cell are obliged to place themselves horizontally in the little bark destined to convey them through the above low and narrow aperture, which is so small as to excite an alarm of finding darkness within; but, on the contrary, if the day be cloudless, all is light—light that would dazzle were it not blue. The colour of the water which fills the cavern precisely resembles that of the large bottles of vitriol, with lamps behind them, seen at chemists' windows in England; and this water appears to act like the lens of a telescope, by conducting the rays of the sun and the reflection of the brilliant skies of *Magna Græcia* into the cavern. After the eye has been for a few moments accustomed to a light so magical, the stupendous vaults of this gigantic bath are discernible, richly studded with stalactites, and assuming, in consequence of a strong reflection from the transparent blue water, exactly the same tint. The cavern contains broken steps leading to a subterraneous passage, the length of which is unknown, it being impossible to reach the end, owing to an impediment formed by earth and stones. Masonry seems to have been employed in the construction of the steps and passage, which probably communicated either with one of Tiberius's villas or that of Julia, the niece of Augustus; but the cavern, although it may have been used as a bathing-place, is evidently the work of nature."

THE BOBBIN-NET MANUFACTURE.

It has seldom happened that the growth of any considerable manufacture has been so rapid that an account could be given of its rise and progress, while the circumstances attending it have been so recent as to be within the personal knowledge of the narrator. The slow progress generally made towards the perfection of such arts may be easily accounted for. The inventor who strives to introduce a new object into use or consumption must, in many cases, create the want which he offers to gratify, and must awaken the world to a sense of the desirableness or usefulness of the article which he produces. It very often happens, too, that some previously-existing branch of industry, of which he must necessarily avail himself for carrying forward his processes, is not in a sufficiently forward state to afford the full measure of assistance, which, by after improvements, it is rendered capable of yielding. There are, indeed, many inventions which have been lost to the world for a time, and some may even have been altogether consigned to oblivion, for want of that indispensable degree of assistance. The combinations of machinery necessary for the production of Mr. Babbage's calculating machine might have been conceived a century or more ago, since the powers of the human mind were then as great for purposes of invention as they now are, and it cannot be said that the conceptions which have perfected that extraordinary work were awakened by any previous discoveries or inventions of other mechanics or philosophers. But this machine would, at that time, have been invented in vain, and must have remained a fruitless conception in the mind of its author, since the mechanical skill required for its completion, and even the tools necessary for that purpose, did not then exist.

The disadvantageous circumstances here enumerated

have not stood in the way of the manufacture of which we are about to give a short notice. The desire of possessing and using bobbin-net lace had been long before created. Thread and silk lace, for which it has become so extensively a substitute, is a very ancient manufacture, and, although from the tedious and complicated nature of the processes by which it was made, the use of lace was confined to the wealthy, yet that very circumstance may have imparted to it a factitious value, and engendered a stronger desire for its possession than would otherwise have been felt by the more numerous classes. The great improvements effected in the art of spinning cotton had already furnished the material of a quality adapted to the purpose, and all that was wanted for the production of a fabric generally acceptable was the possession of a machine by which the labour employed might be economized, and the price of the manufacture brought within the compass of a larger class.

The invention of the stocking-frame dates from the close of the sixteenth century. About one hundred and fifty years after that frame was invented, it was discovered, by mere accident, that by applying to it another machine as an appendage, and which was called the "tickler machine," the stocking-loops could be removed in certain and various directions, so that the work assumed somewhat the appearance of lace. The net thus produced was, however, deficient in this essential point, that, when unstiffened, it no longer retained the appearance of lace. Notwithstanding this defect, upwards of 20,000 persons were at one time employed in making this net and in ornamenting it with embroidery.

This partial success appears to have acted as a stimulus, and, about the year 1770, many attempts were made to contrive machinery that should more closely imitate the lace made by hand, by twisting and traversing the threads round each other. A machine was at this time brought from Switzerland, and various attempts were made to improve it so as to produce a sort of plat; but this was found to be a slow and imperfect process, and was soon abandoned. Numerous attempts were then made to produce a more perfect mechanism. Winding bobbins with teeth and rolling in other rock-teeth,—threads wound upon wire,—tier upon tier of hooks,—revolving wheels on slides,—and hundreds of other plans, were attempted. By some of these the bobbin-mesh was indeed produced, yet the slowness of the operation, and still more the want of accuracy in the working, prevented the adoption of any one of those inventions.

In this state of things, accident again proved a powerful auxiliary. A workman of Nottingham, employed in making machinery for producing fishing-nets, seized upon a hint furnished by a child at play, and discovered by that means a mode of forming the bobbin and carriage now used in the bobbin-net machine. The invention was applied in the first instance to the production of fishing-nets, and many abortive attempts were made before the principle thus discovered could be applied to the manufacture of bobbin-net lace. It was not until the year 1809 that the first successful machine for this purpose was perfected.

It has generally happened that machines, when newly contrived, have been complex in their arrangements, and that the improvements, of which from time to time they have been the objects, have consisted in simplification, and in the removal of parts which, through the modification of the remainder, are seen to be redundant. The first bobbin-net machine was extremely complicated in its contrivance, and for this reason slow in its operation. It had twenty-four motions to the series for twisting the mesh, and four other motions were required to secure the twist from

unravelling. The right to this invention was secured by patent, and proved to be a most successful speculation to those who embarked in it. Before the fourteen years for which the patent was granted had expired, the machine had been so far simplified as to require only thirteen instead of twenty-four motions for completing the mesh, and only two instead of the four motions that had been necessary to secure the twist; and since the invention has become the property of the public by the expiring of the patent, so much ingenuity has been brought to bear upon the construction of the machine, that only six motions are now needed for the production of the mesh, and the two motions then needed for securing the work are now performed simultaneously with the other six. By these means the speed of the machines has been increased twelve-fold, and, in consequence of the greater simplicity of the working, it has been found practicable to propel them by steam and water power. The net produced in the original machines was necessarily limited in its width to one yard and a half, but many frames are now in use which make net four yards wide.

It has also been found possible, by the aid of machinery, to work various ornaments into the net, and means have also been discovered for working the net into slips of various widths,—the original machine having been capable of producing only one plain broad piece. The simplification of the machinery has of course occasioned a reduction in the cost of producing the manufacture; but the profits of the possessors of the patent must, notwithstanding, have been ample, since they were enabled to take advantage of the desire of the public to purchase their fabric to such a degree as to sell for five guineas that which may now be purchased for half-a-crown!—a fact which will not be thought so extraordinary when it is known that more than one-half of the bobbin-net lace, now made, is sold by the manufacturers as low as one shilling for a square yard, the highest price of plain net of the best quality being only eighteenpence per square yard: ornamented goods are of course sold higher.

We are induced to add a few particulars to the foregoing sketch, in order to show the importance of this manufacture in a national point of view. The statements may be relied on as substantially correct, having been drawn out by a gentleman intimately acquainted with every part of the manufacture, and approved by other persons equally capable of judging as to their correctness.

The population of Nottingham, Lenton, Beeston, Radford, Barford, Arnold, and Sention, when the bobbin-net manufacture was commenced, in 1811, amounted to 47,300; at the last census (in 1831) it was rather above 80,000. It is computed that the number of persons, including children, employed in spinning and doubling the yarn used for this manufacture, is 13,000. Of men, women, and children, employed in power net-making, there are 3000. In hand-machine making, nearly all of whom are men, 5000. In winding, which is done by children at their homes, 4000. In mending, done by women and children at home, 6000. Total, 31,000. It is further computed that 100,000 women and children obtain a living, or at least assist toward their maintenance, by embroidering bobbin-net lace. This is a principal employment in almost every village for a considerable distance round Nottingham; and it is also followed, to a large extent, in the counties of Devon, Somerset, and Norfolk, as well as in Glasgow, in London, and in some parts of Ireland. The number here mentioned is, however, probably overstated.

The annual consumption of raw cotton, for this manufacture, is stated to be about 2,400,000 lbs. weight, the value of which, including the labour bestowed upon it

for its conversion into yarn suited to the manufacture, is 635,000/. A small quantity of silk is also used annually, and the value of this, when it comes from the throwing mills, is stated at 10,000/. From these materials are produced:—

Yards.		s. d.	per sq. yd.	£.
5,645,000	of hand-lever quilling net,	at 1 3		352,815
2,207,000	hand-circular quilling net,	"		137,935
6,622,000	hand-circular plain net,	1 6		496,650
4,580,000	hand-rotary plain net,	1 0		229,000
10,905,000	power plain net,	"		545,250
562,000	fancy net,	2 6		70,250
250,000	silk net,	1 6		18,750

30,771,000 square yards, of the value of . . . £1,850,650

About three-fourths of these quantities are annually exported, and chiefly in the plain state. The Americans are large customers; a good deal is sent to the north of Europe, and more considerable quantities to Belgium, whence, it is said, a large proportion is smuggled across the frontier into France.

The fixed capital embarked in this branch of industry, within the kingdom, is computed at very little short of two millions, including the present value of five thousand machines of various sizes now at work. A large proportion of these machines having been constructed without the recent improvements, their exchangeable value has been so far reduced by the less expensive and more efficient ones now made, that what has cost the original owners nearly two millions cannot now be estimated at more than 200,000/. Eight machines, which cost 5000/. in 1825, were sold in 1833 for 300/. Five hundred machines of the best construction, costing 100,000/., have been made and put to work in 1832 and 1833. It affords a strong proof that the manufacture is still progressively increasing, that, notwithstanding this rapid addition of improved machinery, the old contrivances continue to be employed. There are not any old machines, in a sufficient state of repair to be capable of producing good work, which are now standing idle. Their saleable value is reduced, both because the more simple machines of modern make may be put together for one-third their cost, and because these latter can be worked more profitably, and require a less application of labour for the production of an equal effect.

Within the last ten years, the bobbin-net manufacture has been undertaken on the Continent. It was computed that, in August, 1833, there were 1850 machines in use there, producing at the rate of about 10,000,000 yards of net annually. Seven-eighths of this quantity is produced in France; Calais being the principal seat of the manufacture in that country, and employing more than 700 machines. For keeping these employed, the owners have hitherto been obliged to use yarns smuggled from England,—the French spinners being unable to produce fine yarn strong enough to bear the action of the machines, or sufficiently regular in its size to make good net. The importation of these fine yarns into France has very recently been legalized, (by an ordonnance, dated the 4th of June,) upon payment of a duty of 7 francs per kilogramme,—about 2s. 10d. per lb.

George Heriot.—This name was hardly known in the southern portion of the island, until Heriot became a prominent character in 'The Fortunes of Nigel.' In the notes to the late edition of that work we are informed, that George was the son of a goldsmith in Edinburgh, and pursued his father's occupation, which was then particularly lucrative, and much connected with that of a money-broker. He enjoyed the favour and protection of King James as well as that of his consort, Anne of Denmark. He became the goldsmith to the king and the jeweller to the queen, whose account with him for a space of ten years amounted to nearly 40,000/. On the accession of James to the crown of

England, Heriot followed his royal master to London, and died there on the 12th of February, 1624, at the age of sixty-one years. He had been married twice; but both his wives died before him, and left him childless. Therefore, after making full provision for such of his relations as might have claims upon him, he left the residue of his fortune, which was very large for that period, to establish an hospital for the maintenance and education of indigent children, the sons of burgesses and freemen of Edinburgh. The number depends on the state of the funds, conjointly with the applications for admission. At first only 39 were received, in the year 1659; in 1735, there were 130; in 1778, 110; but, in July, 1814, there were no less than 175. The average expense of maintaining each, including the necessary expenditure of the institution, is about 48l. yearly. When youths leave the hospital to follow trades, 50l. is paid as an apprentice-fee for them; and those attending an university with a view of preparing themselves for learned professions, are allowed a bounty of 120l. Thus there is much liberality practised to promote their welfare. The funds of the hospital are ample; and, as a large proportion is from land in the immediate vicinity of Edinburgh, they have increased wonderfully of late, and are likely to augment still further. At present, the annual revenue is computed at 8500l. The hospital in which this charity is maintained is a noble quadrangle of the Gothic order, and as ornamental to the city as a building, as the manner in which the youth are provided for and educated, renders it useful to the community as an institution. The intentions of the founder were not carried into effect, by the completion of the edifice; until 1650, at an expense of 30,000l.—a very large sum at that period. Instead of being then applied to its original purpose, Oliver Cromwell, having taken possession of the city, converted the building into a military hospital; but General Monk, several years after, in 1659, withdrew his troops, at the request of the managers, and left it to its original destination.

Suspension Bridges of the Himalaya.—"At some convenient spot, where the river is rather narrow, and the rocks on either side overhang the stream, a stout beam of wood is fixed horizontally upon or behind two strong stakes, that are driven into the banks on each side of the water; and round these beams ropes are strained, extending from the one to the other across the river, and they are hauled tight and kept in their place by a sort of windlass. The rope used in forming the bridge is generally from two to three inches in circumference, and at least nine or ten times crossed to make it secure. This collection of ropes is traversed by a block of wood, hollowed into a semicircular groove large enough to slide easily along it; and around this block ropes are suspended, forming a loop in which passengers seat themselves, clasping its upper parts with their hands to keep themselves steady; a line fixed to the wooden block at each end, and extending to each bank, serves to haul it and the passenger attached to it from one side of the river to the other. "The j'hoola (as the bridge is called) at Rhampore was somewhat formidable, for the river tumbles beneath in a very awful way; and the ropes, though they decline in the centre to the water, are elevated from thirty to forty feet above it: the span is from ninety to a hundred yards. It was amusing enough to see several of our low-country attendants arming themselves with courage to venture on this novel mode of transit; and I must confess that, although it was evident that the actual danger was small, it was not without certain uncomfortable feelings that I first launched out on the machine to cross the Sutlej. We found, however, that accidents sometimes occur; and it was scarcely twelve months since a Brahmin, who had come from Cooloo, having loaded the ropes with too great a weight of his gods, and accompanied them himself, fell into the stream, was hurried away, and dashed to pieces."—*Frazer's Tour through Part of the Snowy Range of the Himalaya Mountains.*

* * The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's-Inn Fields.

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THE ALLSPICE-TREE.



[Pimento or Allspice-Tree.]

The tree that produces the condiment which we call Allspice is a West Indian species of myrtle, which is also called the Pimento. It grows to the height of from twenty to thirty feet, and has somewhat oval leaves, of a deep shining green colour, and numerous branches of small white flowers, each with four white petals. The thick and dark-green foliage, relieved by an exuberance of white and richly-aromatic flowers, renders its appearance very striking; and there is scarcely, in the vegetable world, any tree more beautiful than a young pimento-tree about the month of July. That, with the preceding and following months, forms the period of its being in flower, the commencement of which varies with the local situation of the tree and the difference of the season for rain. After it flowers the fruit soon ripens, and it is observed that this takes place the soonest in clear open grounds.

The pimento-trees grow spontaneously, and in great abundance, in many parts of Jamaica, particularly on the northern side of that island, in elevated spots near the coast; but they cannot be propagated without great difficulty. The usual method of making a new pimento walk, or plantation, is to appropriate for this purpose a piece of woody ground, in the neighbourhood of an already existing plantation, or in a part of the country where the scattered trees are found in a native state. All other trees are then cut down, but the timber is allowed to remain and decay where it falls. In a year or two, young pimento plants are found to spring up in all parts of the land, supposed to have been produced from berries dropped there by birds, which eagerly devour them. The tree begins to bear fruit in three years after it is planted, but it does not arrive at maturity until seven. At that age it often yields its fruit at the rate of one thousand pounds weight from an acre; and, in favourable seasons, a single tree has been known to yield one hundred and fifty pounds of the raw fruit, or one hundred weight of the dried spice; there being, commonly, a loss of one-third in curing.

About the month of September, and not long after the blossoms have fallen, the berries are in a fit state to be gathered. They are not then, indeed, quite ripe, but they have attained their full size, which is generally about that of a peppercorn. They are gathered by the hand, and one labourer in a tree will strip them off so quickly as to employ three below in picking them up; and an industrious picker will fill a bag of seventy pounds weight in a day. After they have been carefully cleared of leaves, small twigs, and ripe berries, they are spread thinly on cloths, laid over terraced floors, raised a little above the ground, inclosed with an upright ledge of eight or ten inches in height, and divided by transverse partitions into four or more square compartments, that each may contain a day's gathering. During the first and second days they are turned often, that the whole may be more exposed to the sun; but when they begin to dry they are frequently winnowed, and laid in cloths to preserve them better from rain and dews, still exposing them to the sun every day, and removing them under cover every evening until they are sufficiently dried. The drying process, which usually takes about twelve days, changes the green colour to a deep reddish-brown, by which, and the rattling of the seeds within the berries, the operation is known to be completed:—they are then packed in bags or hogsheads for the market. When the berry is allowed to become quite ripe it is of a dark-purple colour, and filled with a sweet pulp.

In its smell and flavour pimento is thought to resemble a mixture of cinnamon, nutmeg, and cloves, whence it obtained the name of *all-spice*. Its use in cookery is well known. It is also employed in medicine as an agreeable aromatic, and it forms the basis of a distilled water, a spirit, and an essential oil. When the

leaves of the pimento are bruised they emit a fine aromatic odour, as powerful as that of the fruit; and, by distillation, they yield an odoriferous oil, which is not unfrequently used in medicinal preparations instead of the oil of cloves. The tree was introduced into this country in the early part of the last century, but the fruit does not ripen. It is delicate and difficult to manage; requiring, at the same time, warmth and a great deal of air.

LIFE OF AN INDIAN CHIEF.

A book has lately been published at Boston, in the United States of North America, which purports to be the Life of an Indian Chief with the unpronounceable name of *Ma-ka-tai-me-she-kia-kiak*, which signifies 'Black Hawk.' The work was dictated by the chief to Mr. Leclair, the United States' interpreter for the Indian tribes of Sacs and Foxes. It appears that 'Black Hawk' is well known in the United States; and the 'American Quarterly Review,' from the last Number of which our knowledge of the book is obtained, considers it so well authenticated that it feels compelled to take the genuineness of the work for granted. It is there stated to be a production of considerable curiosity and interest, not only from the narrative it gives, but as being, it is believed, the first published production of an American Indian. There have been orations in abundance, but no connected or continued narrative before.

Mr. Leclair's statement is, that Black Hawk (we shall call him by his shorter name) called upon him and expressed a desire to have his life written and published; that, in accordance with his request, he acted as his interpreter, and was particularly careful to understand the old chief's narrative throughout; and that he examined the work carefully after its completion, and pronounced it strictly correct in all its particulars. The motive for such an undertaking is thus described by Black Hawk himself:—"The changes of many summers have brought old age upon me,—and I cannot survive many moons. Before I set out on my journey to the land of my fathers, I have determined to give my motives and reasons for my former hostilities to the whites, and to vindicate my character from misrepresentation."

Black Hawk belongs to a tribe of Indians called the Sacs. The original site of this tribe seems to have been in the neighbourhood of Montreal, from whence, by the combination of different hostile bands, they were gradually driven westward, until, after many wanderings, they finally settled on the Rock River, where they built their village, first expelling the *Kaskaskias* from the country. In this settlement our chief was born in the year 1767, being a great-grandson of the chief *Na-na-ma-kee*, or Thunder, in whose time the white men first appeared. Nothing worthy of note transpired in the life of Black Hawk until he had attained the age of fifteen, when, having wounded an enemy, he was placed in the rank of the warriors. The events of his youthful career, as related in the book, illustrate the lives of young Indian chiefs in general. Feats of slaughter are related with all the coolness and apparent pleasure which those who are led to regard them as commendable actions would naturally feel.

The circumstances of the earlier portion of Black Hawk's life are hurried over by himself or omitted by his reviewer, and the narrative is taken up in detail at the period when the circumstances occurred which ultimately led to what will probably be the last regular conflict between the civilized and savage men of North America. In order not to impair the peculiarity and force of the narrative of events and feelings, we shall

endeavour, by careful condensation, to allow the chief to continue his narrative in the first person, so far as it can be rendered convenient. The difference between the Indians and the United States seems to have originated in a treaty by which, in 1804, a cession of territory was made by the former to the latter. The affair is thus described by Black Hawk:—

"Some moons after the young chief (Lieutenant Pike) descended the Mississippi, one of our people killed an American, and was confined in the prison at St. Louis for the offence. We held a council at our village to see what could be done for him, and it was determined that Quash-quà-me, Pà-she-pa-ho, Oû-che-quà-ka, and Hà-she-quar-hi-quà, should go down to St. Louis, see our American father*, and do all that they could to have our friend released, by paying for the person killed—thus covering the blood and satisfying the relations of the man murdered. This is the only means with us of saving a person who has killed another, and we then thought it was the same way with the whites. The party remained a long time absent. They at length returned and encamped at a short distance below the village, but did not come up that day, nor did any person approach their camp. They appeared to be dressed in fine coats and had medals. From these circumstances we were in hopes that they brought good news. Early next morning the council-lodge was crowded. Quash-quà-me and party came up and gave us the following account of their mission. On their arrival at St. Louis they met their American father, and explained to him their business and urged the release of their friend. The American chief told them he wanted land, and they agreed to give him some on the west side of the Mississippi, and some on the Illinois side, opposite the Jeffreon. When the business was all arranged, they expected to have their friend released to come home with them; but about the time they were ready to start, their friend was let out of prison, ran to a short distance, and was shot dead. This was all they could recollect of what was said and done. They had been drunk the greater part of the time they were at St. Louis. This is all myself or nation knew of the treaty of 1804. It has been explained to me since, that by that treaty all our country, east of the Mississippi and south of the Jeffreon, was ceded to the United States for 1000 dollars a year. I could say much about this treaty, but I will not at this time. It has been the origin of all our difficulties."

The Sacs were of opinion that they had been deceived into this treaty, and they strongly objected to its validity on the ground that it was not made in the presence of the assembled nation, but concluded with individuals who had not the authority of the whole tribe for what they did. Black Hawk exclaims in bitterness of heart, "Why did the Great Spirit ever send the whites to this land to drive us from our homes, and introduce among us poisonous liquors, disease, and death? They should have remained in the land where the Great Spirit first placed them." He also takes occasion to express a strong and peculiar opinion on the general subject. "My reason teaches me that land cannot be sold. The Great Spirit gave it to his children to live upon and cultivate, as far as is necessary for their subsistence; and so long as they occupy and cultivate it, they have the right to the soil. But if they voluntarily leave it, then any other people have the right to settle upon it. Nothing can be sold but such things as can be carried away."

The resentment of the Sacs at this transaction, in which they considered that they had been unfairly dealt with, appears to have induced them the more readily to join with the British in the war of 1812. Previously

* It seems that the "American Father" is the local governor, and the "Great Father" is the President of the United States.

to this, however, some of the chiefs and head men had been invited to Washington, where the Great Father advised them to remain neutral in the approaching contest, and assured them that an American trader should supply them with such goods as they needed, and afford them the same credits as the British traders usually did. "We all agreed," says Black Hawk, "to follow our Great Father's advice and not interfere with the war. Our women were much pleased at this good news. Everything went on cheerfully in our village. We resumed our pastimes of playing ball, horse-racing, and dancing, which had been laid aside when the war was first talked about." When the trader came, however, they were greatly distressed to find that he would give them no credit, and had received no instructions on the subject. "Few of us slept that night—all was gloom and discontent. In the morning a canoe was seen descending the river,—it soon arrived, bearing an express which brought intelligence that La Gutrie, a British trader, had landed at Rock Island with two boats loaded with goods, and requested us to come up immediately, because he had good news for us and a variety of presents. The express presented us with tobacco, pipes, and wampum. The news ran through our camp like fire in the prairie. Our lodges were soon taken down, and all started for Rock Island. Here ended all hope of our remaining at peace,—having been forced into war by being deceived." It appears to have been during the connexion of the Sacs with the British, that the following touching incident occurred:—

"One of our people having killed a Frenchman at Prairie du Chien, the British took him prisoner, and said they would shoot him the next day. His family were encamped at a short distance below the mouth of the Ouisconsin. He begged for permission to go and see them that night, as he was to die the next day. They permitted him to go, after he had promised to return the next day by sunrise. He visited his family, which consisted of a wife and six children. I cannot describe the meeting and the parting so as to be understood by the whites. He parted from his wife and children, hurried through the prairie to the fort, and arrived in time. The soldiers were ready, and immediately marched out and shot him down. I visited his family, and by hunting and fishing provided for them until they reached their relations."

Some of the incidents of the war, as related by Black Hawk, are interesting; and when peace was restored, he says, "I now determined to remain with my family, and hunt for them; and humble myself before the Great Spirit, and return thanks to him for preserving me through the war." But the whites soon began to settle the country, and continual disputes occurred between them and the Indians. The latter were repeatedly required by the government to remove to the other side of the Mississippi, but the requisition met with no attention, for the reasons we have explained. Black Hawk expatiates with energy on the beauty of the village, and the excellence of the grounds the Sacs were required to leave; and thus concludes his description:—"We always had plenty,—our children never cried with hunger, and our people were never in want. At that time we had little intercourse with the whites, except our traders. Our village was healthy, and there was no place in the country possessing such advantages, or any hunting-grounds better than those we had in possession. If another prophet had come to our village in those days, and told us what has since taken place, we would not have believed him. What! be driven from our village, and not even permitted to visit the graves of our forefathers, relations, and friends! This hardship is not known to the whites. With us it is the custom to visit the graves of our friends, and keep

them in repair for many years. The mother will go alone to weep over the grave of her child. The warrior with pleasure visits the grave of his father, after he has been successful in war, and re-paints the post that shows where he lies. There is no place like that where the bones of our fathers lie to go to when in grief. But how different is our situation now from what it was in those days! Then we were as happy as the buffalo on the plains,—but now we are as miserable as the hungry howling wolf in the prairie."

It may elucidate the preceding statements to explain, briefly, the mode of life among these Indians. In the fall they were accustomed to start for their wintering-grounds, where they dispersed in small parties to make their hunt. With the skins and other proceeds of their enterprise they resorted to the establishment of their trader, where they amused themselves at different pastimes until near the close of the winter. Some of them made excursions in search of beavers, while others located themselves at the sugar-camps to make sugar. They generally appointed some place of rendezvous on the Mississippi, where they might assemble in a body to return to their village in the spring. Thither, at that season, they repaired, and there finished their trading with the whites, who uniformly followed them to their homes. When the traffic was over, they buried all their dead who had died during the year. This was the great "Medicine Feast," as they call it. They then proceeded to repair their lodges, and to make their fields ready for planting corn, which was soon after done. The women performed this duty. Feasting and dancing then followed, the last being the national dance, which was performed for the benefit of the young warriors. When the corn was up, the youths would start westward to hunt the buffalo and deer; part of the old men and women going to the lead-mines to work, and the remainder going to the river to fish and to procure mat-stuff. After about forty days' absence they re-assembled, and this constituted the most happy portion of their year. Presents were reciprocally exchanged,—provisions were in abundance,—and nothing was done except feasting and visiting. The 'Great Spirit' was not forgotten; but daily offerings were made to the 'Good Spirit' to return thanks for his care of them, and to the 'Bad Spirit' to keep him quiet. These feasts were renewed when the corn was ripe, and horse-racing, &c., occupied the time until the grain was secured. The traders then came among them again, and the price of the different articles which the Indians were to procure during the winter being previously fixed, they supplied the savages with such articles of clothing as they stood in need of upon credit. The old people and a part of the corn were then deposited in the houses built by the traders, to which the Indians were to resort during the winter with their skins, and the rest then started upon their winter-hunt. Such being the customs of this primitive people, we can easily understand the importance with which their village was regarded by them. But after the dissensions which we have mentioned had been renewed, whenever the Sacs returned to their village from the hunting-grounds they found their lodges destroyed by the white settlers, their corn ploughed up, and their fences thrown down. Skirmishes, in which individuals on both sides were killed, naturally followed. These quarrels continued for a long time; the whites every year becoming stronger, and the government taking more vigorous measures to enforce the execution of the treaty. The Indians themselves were divided into two parties; one, headed by Ke-o-kuck, being willing to remove, and the other, of which Black Hawk was the leader, as determined to remain. At last General Gaines was directed by the government to proceed with a party of soldiers and enforce their removal. The General tried what could be done peaceably, in the first instance, and

succeeded in effecting a temporary arrangement, under which the Sacs left their village; but afterwards, complaining that the government failed in complying with that part of the agreement which secured to them a supply of corn, Black Hawk determined to re-possess himself of the village in the spring. Meanwhile he proceeded up the Rock River to procure reinforcements from the tribes in that direction. He did not, however, succeed in this object, and his party was pursued by the American troops, who attacked them and were defeated with great loss. This victory inspired the Indians with new courage, and spread much consternation and alarm throughout the country. But, as might be expected, the Black Hawk was at last overcome, and the war ended with a solemn renewal of the cession of the disputed territories. Black Hawk, his sons, and others, were surrendered as hostages to remain in the hands of the whites during the pleasure of the President.

The government resolved to restore these Indians to their liberty, after showing them the richness and strength of the country. They were accordingly escorted through different parts of it. "We all remember," says the reviewer, "the tour of this bold chief through a part of the Union, and with what eager anxiety a sight of him was anticipated. For ourselves, we plead guilty to the charge of admiration of the Indian warrior. His courage and daring in battle, his constancy in fatigue and danger, and his magnanimity under defeat, gave birth to this feeling. He had the bold, calm front so characteristic of the natives of our western wilds, and the prominent aquiline nose not unfrequent in that race, though the contrary has been vulgarly, yet erroneously, supposed to be a distinguishing mark of their features. We may remark here that no part of our globe has presented specimens of savage nature that will bear a comparison in body or mind with our American Indians. Nowhere have finer models for the statuary or painter been presented, and in no race have some of the higher and nobler qualities of our nature been more signally developed. The vices of the American savage are those of pure barbarism, while his virtues appear to belong to a much higher degree in the scale of human society. Well may the philanthropist feel a deep interest in their welfare, and well may he be excused for even enthusiastic exertions in their cause."

FIRE.

THE procuring of fire, which with us is so simple as scarcely to obtain a notice, is a matter of difficulty to those unprovided with the means we possess; and the shipwrecked mariner or benighted traveller has been sometimes compelled to suffer the extremity of cold in the midst of fuel, for want of a tinder-box. The most primitive mode of getting a fire was, no doubt, to rub together two pieces of wood, until the fine dust rubbed off was kindled from the heat produced by friction. Such is the mode used in the smaller islands of the Pacific, which have not yet had sufficient commerce with Europe or America to provide them with flint and steel: the larger ones appear to have been so amply supplied with fire-arms within these twenty years that the original mode must be out of use.

The usual way of performing this operation is to take a stick of hard wood pointed at one end, and to turn it rapidly between the hands in the manner of a chocolate mill, the pointed end being all the time strongly pressed against a piece of soft wood, notched to receive the point. The small particles rubbed off are soon ignited, and a little dry moss is added to increase the flame. This method answers well with the uncivilized people who practise it, but it must require much habit and great strength to make it succeed.

In Terra del Fuego, at the extremity of South America, the natives procure fire by rubbing briskly a piece of pyrites against a flinty stone, and catching the sparks upon a dry, mossy substance, which is quickly inflamed. This approaches nearly to the flint and steel of civilized nations; and it may appear strange that so helpless a race as the Fuegians should in this respect surpass the more ingenious inhabitants of the South Seas: the cause will probably be found in the abundance of hard metallic substances in the rocks of Terra del Fuego, while a small bit of metal is a valuable rarity in the Pacific Islands.

The flint and steel, with the tinder and match, of some kind or other, have long been the instruments of getting light in the civilized world. A tinder of burned rags appears to be the only sort used in England, whilst on the continent a sort of parasitical mushroom, called the *boletus ignarius*, is used for that purpose. This substance is cut in slices, soaked in a strong solution of saltpetre, and dried; in which state it catches fire by a spark, though not quite so readily as English tinder. This preparation is now known in England by the name of German tinder, and is used by smokers to light their cigars, as being more cleanly in the pocket than our tinder. The match is generally the same as ours, except in some parts of the south of Europe, where it is made of long strings of cotton, like candlewicks, dipped in brimstone.

Mechanical means of striking fire with the flint have been long known: the pistol tinder-box, which is merely the lock of a pistol with a large pan to contain tinder, has been in use many years; and, as long ago as the fifteenth century, we find a notice of a clock which gave an alarm, and struck fire with a flint, to light a candle at any hour of the night.

Blacksmiths in some parts of this country light a fire by striking a piece of soft iron-wire several smart blows with a hammer, by which it is made red hot in a few seconds. The iron is then stuck into a little heap of powdered brimstone and sawdust, which is immediately kindled.

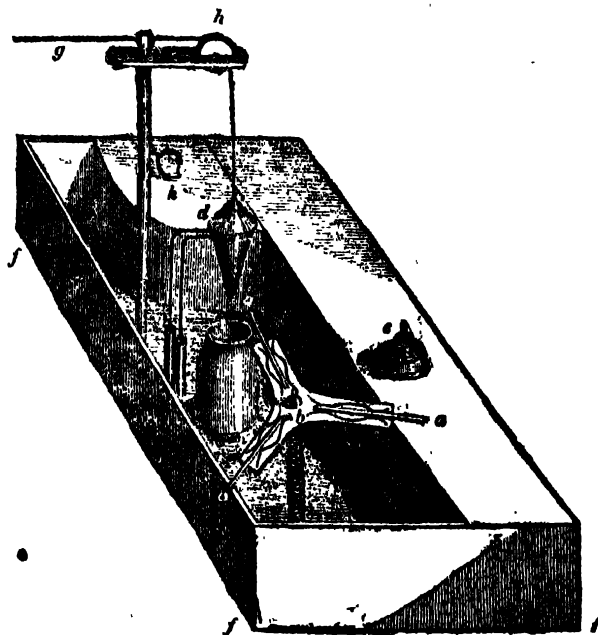
It appears that, until within these few years, the only method of obtaining fire was by some sort of friction or collision, if we except the burning-glass, which was used for that purpose occasionally in very early times, as it is mentioned by Aristophanes, who lived twenty-two centuries ago. Within the present century, the aid of chemistry has been called in for this purpose: the methods of getting fire have been multiplied to a great extent, and instantaneous lights have become quite common, under the various names of Prometheans, Lucifers, &c. &c.; although, from its superior cheapness, the tinder-box will probably always keep its place in domestic use.

One of the first chemical methods was the phosphorus-box; this was a small tube, or bottle, containing a bit of phosphorus, a cork, and a few common matches: when a light was wanted, one of the matches was pressed against the phosphorus, so as to detach a minute particle, and then rubbed quickly against the cork; the match would be lighted by this plan in a few seconds. The phosphorus-box is now but little used, having been superseded by more ready methods; though the name is often applied to other match-boxes which do not contain a particle of phosphorus.

It had been known for many years that a mixture of a certain salt called chlorate of potash with sulphur, camphor, charcoal, or any other easily combustible powder, would take fire when placed in contact with sulphuric acid; advantage was taken of this property by making matches of some of those mixtures, which matches of course ignited on being dipped into a bottle containing a little of the acid. This is by far the commonest instantaneous light in use; little pasteboard

boxes, containing above fifty matches, with a bottle of sulphuric acid, being sold for two-pence. The acid is prevented from spilling by a few filaments of asbestos mingled with it, answering the purpose of the cotton placed by many writers in their inkstands to prevent the ink from running over. Asbestos being a mineral is able to resist the action of the acid, which would destroy any vegetable substance such as cotton.

The principal inconvenience of these boxes lies in the difficulty of finding the mouth of the bottle in the dark, and the danger of spoiling clothes, &c., by the acid. This was obviated by a very ingenious apparatus, which was made the subject of a patent some years ago. In



this apparatus, three matches (*a a a*) are fixed in a metal frame (*b*) turning upon an axis; around the axis is wound a bit of string, fastened to a spring (*c*). The little frame is turned so that one of the matches rests against a wire attached to the stopper (*d*) of a bottle containing sulphuric acid. The spiral spring keeps the match gently pressed against this wire until the stopper is drawn out of the bottle, as in the figure. When this is done, the match passes by the stopper and rests against the wick (*e*) of a spirit-lamp, rubbing as it passes against the lower part of the stopper, prolonged for that purpose, and of course well wetted with the acid in which it was immersed when closed. The stopper is replaced in the bottle—the wetted match takes fire—the lamp is lighted, and a fresh match takes the place of the former and is ready for a new operation. All this is the work of a single second, and the whole apparatus is contained in a box (*fff*) small enough to go into the pocket. The box may be placed on a table and used by a person in bed; a string (*g*) being fixed to the stopper passes over a wheel (*h*) and is conducted to the bed-side. Nothing more is necessary than to pull the string and let it go again; a lamp is immediately lighted, without the inconvenience of seeking for the box in the dark, dipping the match into the bottle at the hazard of spilling the acid, and lighting a candle afterwards. Three matches are fixed in the frame in case of failure with one, which will sometimes happen, however carefully the matches may be made: *k* is a box containing matches for future use.

To do away with the inconvenience of the sulphuric acid bottle, matches are sometimes made of the chlorate mixture, containing each a little glass globule, in which a minute portion of sulphuric acid is inclosed. A slight blow breaks the glass, the acid mixes with the salt, and the match is lighted. This method is convenient, but

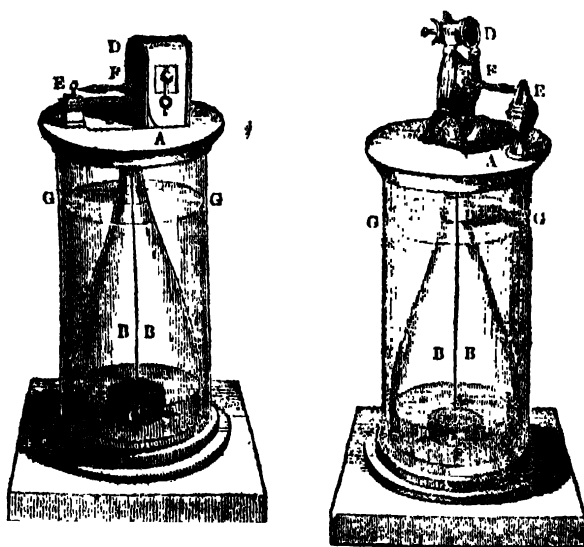
it is expensive, and rather dangerous, for an accidental blow or fall might ignite a box of matches in a room, or even in the pocket.

The chlorate mixture may be kindled by friction as well as by the sulphuric acid, and cases of matches have been recently made up for the purpose, accompanied by a little portfolio lined with sand-paper; the match is inserted between the covers and quickly withdrawn, when it will generally be kindled, though in damp weather it will sometimes require repetition.

An attempt has been made in France to produce an instantaneous light by the compression of air. A strong tube A, is furnished with a piston B, which may be driven rapidly from C to D by striking the knob E, at the end of the piston-rod. The end of the tube, at D, is pierced with small holes to allow the air, when forced up by the piston, to pass into the hollow space G, in the piece F, screwed air-tight to the end of the tubes. When a light is wanted, a small bit of tinder is placed in the hollow, the top screwed on and the piston driven in forcibly; on unscrewing the top the tinder will be found ignited. Some modification of this instrument may be found useful, but in its present state it is inferior to the common tinder-box:—it requires considerable strength,—is equally slow in getting a light,—requires a match to be lighted after the tinder has taken fire, and is easily put out of order.

A very elegant light has been recently manufactured, on a principle which has been discovered within these few years. The principle is, that if a stream of hydrogen gas be directed against a bit of platina in a state of minute division, the platina will become red hot, and the hydrogen gas will be immediately inflamed. To perform this operation it is necessary to make hydrogen gas, and then to pass it through a small pipe against the platina; this has been contrived in the following manner:—

G G is a cylindrical vessel of glass, almost full of diluted sulphuric acid. B B is a smaller bell-shaped vessel, with a large opening at the lower end, and terminating in a tube F at the other extremity; this is put into the larger vessel, with its large end immersed, as in the engravings. C is a coil of zinc, suspended by a wire in the interior vessel, and covered with the diluted acid.



It is well known to chemists that zinc immersed in a mixture of sulphuric acid and water will decompose the water and produce hydrogen gas. This gas then is immediately formed, and will rush out through the tube F against the bit of platina E, where it will be kindled,

and will continue to burn as long as the zinc continues to produce gas. To have this instrument always ready, the upper end of the tube must be closed by a stop-cock concealed in a cover, which may be made ornamental, as on one of the engravings, where it is the figure of a Turk. The gas, as it is produced, no longer finding a passage through the tube F, which is now closed, will expel the liquid from the interior vessel, and make it rise in the outer one: as soon as the liquid has been driven below the zinc, all action will of course cease, but the vessel is now full of gas, and quite ready for use. When a light is wanted, the stop-cock must be turned, by raising the cover D to which it is connected, the pressure of the external liquid will force the gas through the tube, and the light will be obtained. The stop-cock must then be closed by shutting the cover, which serves also to protect the platina from injury, and the zinc will supply gas for the next time it is wanted.

In some of these instruments that part of the apparatus just behind the platina is furnished with a small spirit-lamp, which is lighted and ready for use by the mere operation of raising the cover: further than this it seems impossible to advance in point of convenience; it remains for future ingenuity to discover some plan which shall unite cheapness with the other requisites.

THE FOUNDER OF GUY'S HOSPITAL.

THOMAS GUY was the son of a lighterman in Southwark, and was born in the year 1641. He was apprenticed, in the year 1660, to a bookseller in the porch of Morcer's chapel, and ultimately commenced trade for himself, with a stock valued at about 200*l.*, in the house that lately formed the angle between Cornhill and Lombard-street. The English Bibles being at that time very badly printed, Mr. Guy engaged with other persons in a scheme for having Bibles printed in Holland, and importing them to this country. But this being put a stop to, he contracted with the University of Oxford for their privilege of printing Bibles, and carried on an advantageous Bible trade for many years; and in this may be considered to have reaped the just profits of a person who applies himself to the remedy of a public inconvenience. But it is said that his principal gains arose from the purchase of seamen's prize-tickets, in Queen Anne's war, and from his dealings in South-Sea stock. By his various speculations he ultimately amassed a fortune of nearly half a million sterling. The case of Guy shows what may be done in the way of acquiring wealth from low beginnings; but we do not know that we have any right to propose him generally as a fit model for imitation. We are the advocates of economical, not of penurious, habits, and those of Guy seem to have been of the latter description. Even his splendid public benefactions are said to have been the result rather of accident than design; and, as in many similar cases, do not appear to indicate any peculiar benevolence of disposition. The story runs that, in his old age, Guy had a maid-servant whom he agreed to marry; and, preparatory to his nuptials, had ordered the pavement before his door to be mended so far as to a particular spot, which he marked. The maid, while her master was out, observed a broken place which the paviors had not repaired, and seemed to have no intention of repairing. On inquiring the reason, she was told that the spot which had attracted her attention was beyond the distance to which they were limited by Mr. Guy's orders. She told them to mend it nevertheless, and her master would not be angry if he were informed that it was done by her direction. She was mistaken. Guy was greatly enraged to find his orders exceeded. He renounced his matrimonial scheme, and resolved to build hospitals with his money. His first intention, however, seems to have been rather to improve existing institutions than to found any of his own. In 1707 he built and furnished three wards in the north side of the outer court of St. Thomas's Hospital, in Southwark; and gave 100*l.* to it annually for the eleven years preceding the erection of his own hospital, the design of which he formed in the seventieth year of his age. The charge of erecting this stately pile amounted to 18,793*l.*, besides 219,499*l.* which he left to endow it. He just lived to see it roofed in. It was established for 400 sick persons, besides twenty incurable

lunatics. It is incorporated by act of parliament, and is under the medical inspection of three physicians, three surgeons, and one apothecary. There are twelve wards, containing upwards of 400 beds for so many in-patients, of whom the hospital admits about 2250 every year: besides whom, the charity relieves about 2000 out-patients yearly. Besides this hospital, Mr. Guy founded an almshouse, with a library, at Tamworth in Staffordshire (the place of his mother's nativity), and which he himself represented in parliament. It is intended for the benefit of fourteen poor men and women: and for their pensions, as well as for the putting out poor children apprentices, he bequeathed 125*l.* a-year. To Christ's Hospital he gave 400*l.* a-year for ever; and the residue of his estate, amounting to about 80,000*l.*, he left to be divided among those who could prove themselves to be in any degree related to him. He died, December 17, 1724, in the 81st year of his age, after having dedicated to charitable purposes more money than any one private man upon record in this country.

SPRING OF 1834.

The following is a 'Calendar' kept at Barton-under-Needwood, in the county of Staffordshire, by F. A. E. Hawkesworth, Esq., showing the wonderful precocity of the vegetable and, in some few instances, the animal kingdom, during the first three months of the present year.

Abbreviations used:—*fl.* signifies flowering; *sp.* appeared; *md. shts.*, made shoots.

- Jan. 1. Winter aconite (*helleborus hyemalis*), *fl.*
 " Hepatica (*anemone hepatica*), *fl.*
 " Snow drop (*galanthus nivalis*), *fl.*
 " Dandelion (*leontodon taraxacum*), *fl.*
 " Primrose (*primula vulgaris*), *fl.*
 " Gorse (*ulex europæus*), *fl.*
 " Mezerion (*daphne mezereum*), *fl.*
 2. White dead-nettle (*lamium album*), *fl.*
 " Sweet violet (*viola odorata*), *fl.*
 3. Crocus (*crocus vernus*), *fl.*
 4. Laurustine (*viburnum tinus*), *fl.*
 6. Coltsfoot (*tussilago farfara*), *fl.*
 10. Periwinkle (*vinca minor*), *fl.*
 " Ditto (*do. major*), *fl.*
 11. Polyanthus (*primula polyantha*), *fl.*
 20. Blackthorn (*prunus spinosa*), *fl.*
 24. Creeping crow-foot (*ranunculus repens*), *fl.*
 " Mushrooms (*agaricus campestris*), gathered.
 30. Shepherd's purse (*thlaspi bursa pastoris*), *fl.*
 Feb. 1. Pansy (*viola tricolor*), *fl.*
 " Partridges paired.
 10. Aphides swarmed.
 " Daffodil (*narcissus pseudo-narcissus*), *fl.*
 11. Yew (*taxus baccata*), *fl.*, male plant.
 " Whitlow-grass (*draba verna*), *fl.*
 " Common chickweed (*stellaria media*), *fl.*
 13. Red dead-nettle (*lamium purpureum*), *fl.*
 14. Wall-flower (*cheiranthus cheiri*), *fl.*
 " Marsh-marigold (*caltha palustris*), *fl.*
 15. Feverfew (*matricaria parthenium*), *fl.*
 " Pilewort (*ficaria verna*), *fl.*
 16. Redbreast (*sylvia rubecula*), builded.
 " Filbert (*corylus sativa*), *fl.*
 " Hawthorn (*crataegus oxyacantha*), *md. shts.* more than two inches long.
 17. Herb benet, or avens (*geum urbanum*), *fl.*
 " Wasp (*vespa vulgaris*), *sp.*
 18. Apricot (*prunus Armeniaca*), *fl.*
 19. Wall creas (*arabis thaliana*), *fl.*
 20. Hazel (*corylus avellana*), *fl.*
 21. Honeysuckle (*lonicera periclymenum*), *md. shts.* three inches long.
 22. Elder (*sambucus nigra*), *md. shts.* three inches long.
 " House-sparrow (*fringilla domestica*), builded.
 23. Rook (*corvus frugilegus*), builded.
 25. Campion (*lychnis dioica*), *fl.*
 " Knee-holly (*ruscus aculeatus*), *fl.*
 26. Mountain anemone (*anemone Apennina*), *fl.*
 27. Frog (*rana temporaria*), spawned.
 28. Ground-ivy (*glechoma hederacea*), *fl.*
 " Ivy-leaved speedwell (*veronica hederifolia*), *fl.*
 29. Hairy-leaved ladies'-smock (*cardamine hirsuta*), *fl.*
 Mar. 1. Laurel (*prunus laurocerasus*), *fl.*
 2. Perennial mercury (*mercurialis perennis*), *fl.*
 " Elm (*ulmus campestris*), *fl.*
 " Barren strawberry (*fragaria sterilis*), *fl.*
 " Sweetwilliam (*dianthus barbatus*), *fl.*

- Mar. 3. Bog stitchwort (*stellaria uliginosa*), *fl.*
 4. Double hyacinth (*hyacinthus oricuttalis*), *fl.*
 " Peacock butterfly (*papilio io*), *sp.*
 5. Great stitchwort (*stellaria holostea*), *fl.*
 " Tacamahac (*populus balsamifera*), *fl.*
 6. Box (*buxus sempervirens*), *fl.*
 " Large bat (*vespertilio altivolans*), *sp.**
 7. Cowslip (*primula veris*), *fl.*
 8. Marsh mouse-ear (*cerastium aquaticum*), *fl.*
 9. Wood anemone (*anemone nemorosa*), *fl.*
 12. Pear (*pyrus communis*), *fl.*
 13. Larch (*pinus larix*), *fl.*
 14. Common ladies'-smock (*cardamine pratensis*), *fl.*
 " Butter-bur colts-foot (*tussilago petasites*), *fl.*
 18. Harebell (*scilla nutans*), *fl.*
 24. Crown imperial (*fritillaria imperialis*), *fl.*
 28. Sauce-alone, or garlic (*erysimum alliaria*), *fl.*
 30. Wake-robin (*arum maculatum*), *fl.*
 31. Yellow rocket (*erysimum barbares*), *fl.*

HOGARTH AND HIS WORKS.—No. IV.

THE ENRAGED MUSICIAN.

IN 'Trusler's Hogarth Moralized,' which to some shrewd and sensible explanations of our great artist's designs adds a very sufficient quantity of what is expressively called "twaddle," there are the following pompous remarks upon the plate of the 'Enraged Musician':—

"Amidst all the follies of the age, there never was a greater than the immoderate passion of the people for music. Though amusement and recreation are sometimes necessary, yet when carried to excess they become vicious and shameful. Now, so far did the luxury of this kingdom extend at the time when this plate was first published, which was in the year 1741 (and which seems at present rather to increase than diminish), that Italians, as being supposed to be the greater proficient, were brought over at the greatest expense. * * * To ridicule this degeneracy of the age, Mr. Hogarth published the print before us."

Dr. Trusler by no means stood alone in calling every advance in refinement, which is an advance in civilization, by the name of "luxury." Every mechanical improvement, and every chemical discovery, which increases the ability of a nation to obtain comfort and elegance at a cheap rate, is, with such writers, a proof of the "degeneracy of the age:" every step in the diffusion of knowledge by which the general mind of a people is improved, is with them a symptom of national corruption and the "degeneracy of the age:" above all, every attempt on the part of the people to obtain cheap enjoyments by the cultivation of their taste,—every indication which they give of a love for music, for sculpture, for painting, for poetry,—is an approach to effeminacy, and a sad proof of the "degeneracy of the age." Writers are, however, growing wiser;—and, although too many would still cherish those prejudices which make us halt in our onward march to excellence, the greater number have learnt that the real "degeneracy of the age" is exhibited in the ignorance of great masses of the people, who, still clinging to coarse and unintellectual gratifications, despise those refinements which tend to make "amusement and recreation" a source of permanent improvement.

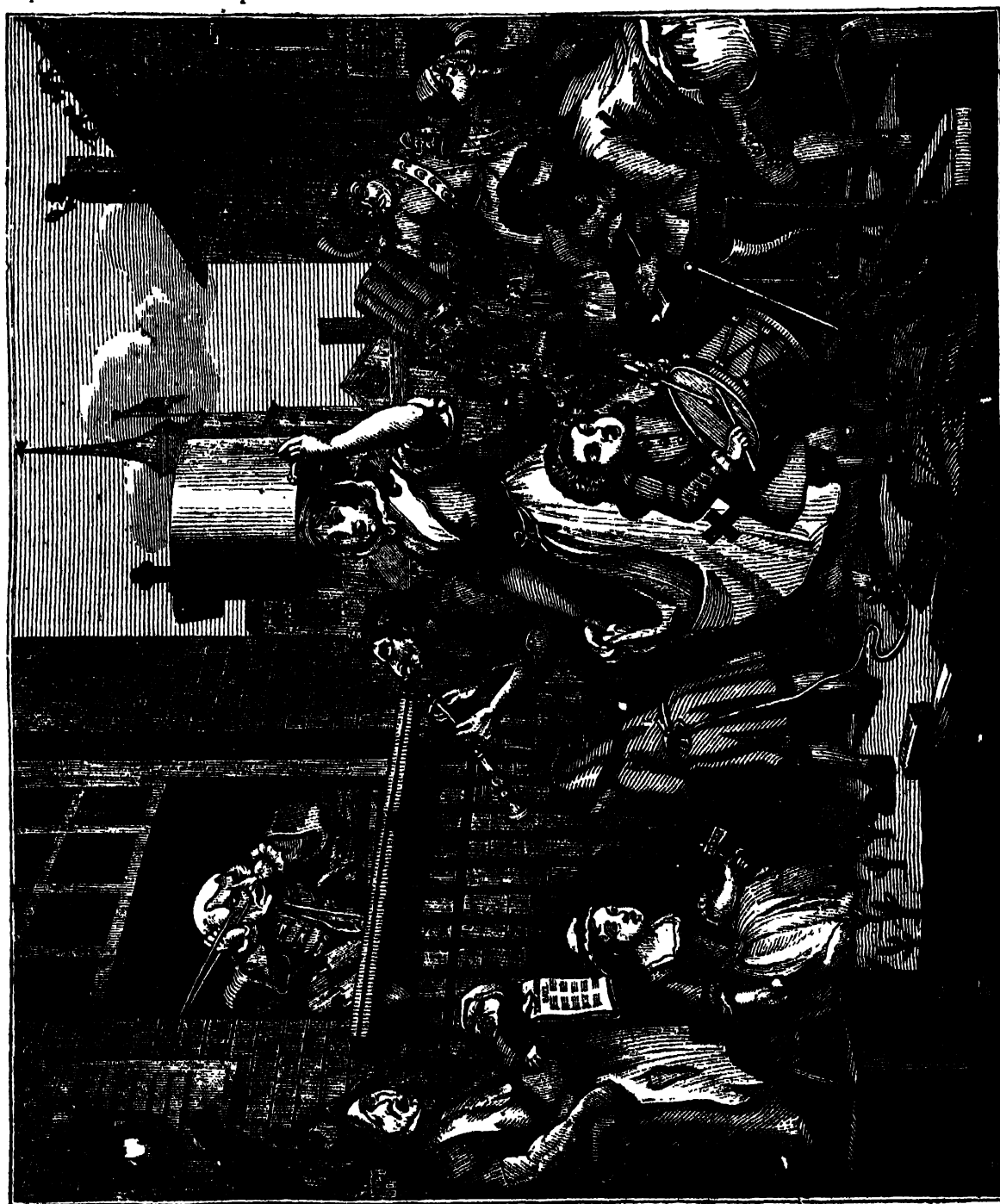
Hogarth had certainly no intention of ridiculing "the immoderate passion of the people for music," when he exhibited a musical professor distracted at the complicated noises which the streets of London produce. He imagined a scene which was well adapted to his extraordinary powers of combination;—he perhaps saw such a scene;—at any rate he had observed many of those circumstances which he has here so happily grouped. The woman bawling out a ballad, with a squalling child singing a treble accompaniment to her melody—the shrieking parrot—the children emulating each other in the discord of the rattle and the drum—

* In the Rev. Gilbert White's 'History of Selborne,' it is said never to appear before the end of April.

the milk-maid uttering her shrill morning cry—the blind hautboy-player—the knife-grinder operating upon a cleaver—the howling dog—the boom of the pavior's rammer—the clatter of the dustman's bell—the sow-gelder who “pours through the echoing horn his pensive soul”—the shout of “Mackerel alive, alive O!”—and lastly, the cats and the sweep on the house top, and the bells pealing from the steeple;—noises such as these have deafened many a sensitive ear in London. But it required the humour of Hogarth to collect them together for the purpose of exhibiting their effect, upon the unhappy violin-player, who had risen to an early enjoyment of his own harmony. Ireland, in his edition of Hogarth, says, that Mr. John Festin, the finest flute-player of his day, suggested the notion of this print to Hogarth, by describing his misery at being compelled to listen to the protracted efforts of an itine-

rant professor of the hautboy, who established himself before his window, and played tune after tune to the great delight of the owner of a barrow of vegetables, who rewarded the minstrel, ever and anon, with a large onion. Ireland holds that Mr. Festin is the “enraged musician;”—but the figure and face bear a considerable resemblance to Dr. Arne, the eminent composer.

Hogarth has succeeded perfectly in working out his conception of a musician of taste, distracted by the noises of our “great Babel.” He had no intention to ridicule the musician; for his misery, although ludicrous enough, still excites our sympathy. The print can hardly be called a caricature—for it has very little of exaggeration. Such an assemblage of discords would be difficult to light upon—but there is no violation of probability in the painter's grouping of so many realities.



[The Enraged Musician.]

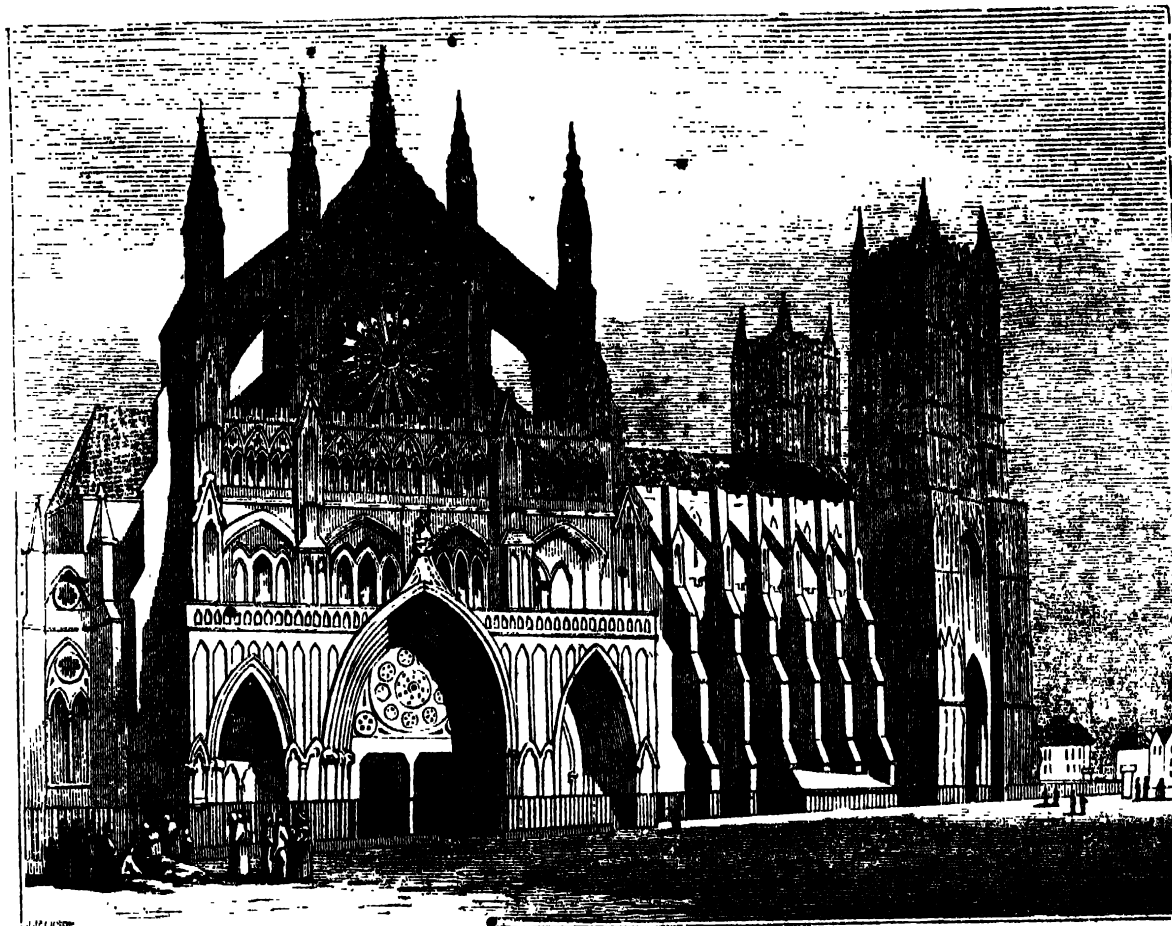
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149.]

June 30 to July 31, 1834.

WESTMINSTER ABBEY.—No. I.



[Front of the Northern Transept.]

IN the 17th Number (Vol. I.) of the 'Penny Magazine,' there will be found a sketch of the early history of Westminster Abbey, with views of the western entrance, and of the Abbey and Hall, as seen from St. James's Park, before the alterations of Sir Christopher Wren. We propose now to devote this Supplement, and a succeeding one, to a general description of the Abbey as it at present stands. We are principally induced to give this extension to the subject by having in our possession six beautiful drawings of the Abbey, by Mr. Smallwood. That very accomplished artist is recently dead; and these drawings were amongst his latest works.

Westminster Abbey, although inferior to some of our cathedrals in magnitude, is, in many respects, a most beautiful specimen of the pointed style of architecture. This, together with its state of complete preservation, and its connexion with the various eras of our history, renders it a monument worthy of the inspection not merely of the antiquary, but of all who feel interested in the world in which they live. Unlike almost every other structure of a similar kind in Great Britain, Westminster Abbey is not merely a memorial of what our forefathers were, and a connecting link in

our annals,—it does not derive its sole interest from holding the tombs of the monarchs, and statesmen, and poets, of long past generations,—but it is still appropriated to the same purposes; and in all probability it is likely to continue, as long as Britain retains her rank and glory, to be the mausoleum of the great and the good, and the silent indicator of our national history.

There is one point of interest connected with the Abbey which is not so generally adverted to as it ought to be. In it was sheltered the father of the British press. It is of little importance to the claims of Caxton whether or not we believe the evidence satisfactory which assigns to Oxford and Frederick Corsellis a priority of claim as to the honour of having introduced the first press, and printed the first book, in England. The evidence is *not* perfectly satisfactory: and whether it were or not, it can neither invalidate Caxton's right, as being emphatically the founder of the British press, nor diminish our esteem and respect for his memory. It was in this Abbey, or in its adjacent buildings, that he first set in motion that *power* which, even in our day, and at a distance of four hundred years, is but beginning to exert its prodigious influence on man. And yet, to a

reflecting mind, what a source of thought is there opened in the contemplation of the two eras—the age of Caxton's press, and the age of the printing-machine! In the one, we have a solitary individual engaged in the various avocations of a printer, a corrector of the press, an editor, a translator, and, we may add, a *projector*,—turning the current of opinion and custom, single-handed, into a channel altogether new;—offering, with singular caution, one production slowly and deliberately after another; and, though a wise and prudent man, utterly ignorant of the vast results awaiting his experiment: in the other, a power, truly described as “tremendous,” extending its influence through all ranks of society, and bearing with a direct and accumulating force upon the moral destiny of the human race.

Westminster Abbey is built in the form of nearly all ecclesiastical buildings of the same style—that of a cross. The eastern part, from the transept, is surrounded by chapels of various forms and sizes,—that of Henry the Seventh being the most capacious and magnificent. This exquisite production of art forms no part of the Abbey; but it is so intimately joined to the primary building as scarcely to be known as a separate erection, except by the elaborate richness of its architectural details. Henry, who carried his prudence into avarice, when advanced in years, and firmly seated on the throne, was alarmed by the “compunctious visitings” of conscience, and thought it expedient to make his peace with heaven by sacrificing a large portion of his valued treasures in the erection and endowment of this beautiful edifice.

The front elevation of the north transept of the Abbey presents an example of that diversified richness and elegant yet fanciful display which belong to the pointed style of architecture. Its imposing effect is derived from its immense buttresses,—its elevated pinnacles,—and its admirable *Rose*, or St. Catherine wheel, window. The Rose Window was rebuilt in 1722:—it forms a circle of thirty-two feet in diameter. There is a corresponding circular window, but more elaborate in its tracery, in the south transept, which was newly built in 1814.

It is to be regretted that Westminster Abbey, like every other building of ancient interest in the metropolis, is unfavourably situated, or at least unfavourably *surrounded*. The approach from the west is meagre in every thing that constitutes what is understood by the phrase of a “good view;” the southern side is blocked up; and the eastern is hemmed in by the buildings of Westminster Hall and the Houses of Parliament. The only clear point of observation is on the northern side; of which the principal feature is the front of the transept already noticed. There are, however, different points from which the Abbey may be seen to some advantage; an agreeable view of the upper portion of the western towers may be obtained from St. James's Park.

Within the walls, the Abbey is 360 feet long, the nave is 72 feet broad, and the length across the transept is 195 feet. Henry the Seventh's Chapel is 99 feet in length, the breadth is 26 feet, and the height 54 feet.

The public are admitted into the interior of the Abbey by an entrance from the south-east, (well known as “Poets' Corner,”) on a payment of fifteen-pence. It was remarked in the description of St. Paul's, (see No. 133.) that it is the spirit of *exclusion* which has powerfully contributed to render a portion of the English public mischievous amid works of art. The exhibition of Westminster Abbey involves somewhat of that sordid principle which has a strong tendency to destroy any emotion of awe and veneration which the most rude and unimformed cannot but feel when visiting the interior of the edifice. Each successive party of visitors are hurried round the sacred pile with an impatience

which leaves no doubt as to its cause. The names of the principal monuments are given out in the style of the exhibitors of Bartholomew fair; and the great bulk of those who daily throng the Abbey in summer certainly see the interior, but they see nothing more. They have no time for that orderly and quiet inspection so essential to the thorough feeling of “the genius of the place:” they see monuments, and tombs; and sculptures; and when the visit is over, they have a confused recollection of something venerable and impressive, but all distinct traces are gone. We would recommend the visitors who pay their money to turn a deaf ear to the “nasal twang” of the guides—to give themselves up to their own meditations—to stay as long as they please—and to be pleased to stay till their minds are thoroughly imbued with the pure and interesting ideas which this sanctuary of the illustrious dead must inspire.

It is from the west entrance that the most striking and effective view of the interior is to be obtained. The view from this point is more extended and unbroken, and the architectural character of the building appears more complete, than from any other. “The lights, too, are so judiciously introduced, and the arrangement and proportions of the columns so nicely adjusted to the forms and magnitude of the arches, and to the aerial loftiness of the vaulting, that the whole combines into one harmonious perspective, and for a time the spectator feels a stronger inclination to contemplate the picture than to examine the design. There are, however, many other points from which the different parts of the Church may be seen to great advantage; and as almost every part displays an exuberance of monumental decoration, in which the art of sculpture has been advanced to a very high degree of excellence, there is probably no structure in the kingdom from the examination of which the intelligent mind can derive a greater pleasure.”*

On entering Henry the Seventh's Chapel, which is slightly elevated above the ground-floor of the Abbey, and is approached by steps of black marble, the spectator pauses to gaze upon the extraordinary scene. The “dim religious light” which fills the place inspires him with a solemn feeling of devotion, and he is enchained by the potency of art. Nothing can be conceived more exquisite in proportion, or more harmonious in detail. The shafts of the arches spring with almost magical lightness towards the fretted roof, which is most gorgeously elaborated with an astonishing variety of figures. The architect has been singularly happy in combining in this gem-like creation the opposing principles of simplicity and profusion of ornament. The walls, as well as the nave, contain upwards of one hundred and twenty statues of patriarchs, saints, martyrs, and confessors, beside angels and innumerable other smaller figures. Upon a raised flooring on each side of the nave is a row of onken stalls, in front of which are reading desks, and under the latter, on the pavement, a corresponding row of seats. The *sub-sellia* of both, which turn back on hinges, display a whimsical arrangement of historical, grotesque, and other carvings. Under each seat there are generally three compartments in high relief, viz., a central and two side ones; the latter being mostly bordered by foliage, which branch out from the middle one: the figures are generally seated, or placed in inclined positions to accommodate them to the space occupied. The subjects comprise groups of bacchanals, a grotesque fiend bearing off a friar on his shoulders, monsters, animals, clusters of fruit, foliage, flowers, &c. But profuse as is the richness of ornament, there is no spoiling of the general effect by a crowding together of disproportioned carvings—all is in perfect accordance

* Brayley's ‘*Londiniana*.’

with the purest taste. The building will thus ever be regarded as one of the most unique and splendid specimens of the painted style of architecture erected in Europe. The tomb of the founder, Henry VII. and his wife Elizabeth, (by a marriage with whom the disastrous contentions between the rival houses of York and Lancaster were terminated,) stands in the middle of the eastern part of the Chapel. Lord Bacon has described this monument as "one of the stateliest and daintiest in Europe;" and it still merits the distinction, though deteriorated by time, and bereft by cupidity of many of its richest ornaments. The will of Henry VII. is preserved in the Chapter House of the Abbey. In it he gives particular directions respecting the disposal of his body, and the religious observances which he deemed necessary to establish.

The banners and other heraldic pomp of the Knights of the Bath add to the impressive effect produced. But in the Duke of Buckingham's Chapel, at the eastern part, there is an effigy, in wax, in ducal robes, preserved in a glass case, which is offensive to every idea of fitness and propriety. There are about half a dozen similar wax-work figures in costume, also preserved in glass cases, in another part of the Abbey: but as the visiter has to ascend a staircase, and they are not immediately in contrast with the surrounding monuments and sculptures, the feeling of impropriety is not perhaps quite so strong, as in this particular instance in Henry the Seventh's Chapel. The puerile exhibition ought to be removed to some wax figure repository. Nothing can be conceived more calculated to destroy the impression produced by a visit to the Abbey, than the injudicious and tasteless introduction of these figures. In order to render the exhibition still more absurd, there is a *favourite* parrot in the glass case containing the figure of the Duchess of Richmond. Queen Elizabeth would not feel her dignity maintained by being thus exhibited in her own "hoop and fardingale," with staring eyes and painted lips; nor would Nelson appreciate the *millinery* taste which consigns him to the admiration of children, in the identical costume in which he "conquered when he fell."

In No. 26 (Vol. I.) of the 'Penny Magazine,' there is a wood-cut of the statue of James Watt, then in the work-shop of Mr. Chantrey. This beautiful statue is now erected in a little chapel called St. Paul's, on the northern side of the Abbey. It is elevated on a pedestal of white marble, and nothing can be conceived finer in art than the statue itself, or more striking in contrast with the objects which surround it. The great improver of the steam-engine is looking down in calm and contemplative mood on the "old world" below; knights in attitude of prayer, and ladies with uplifted hands, fixed in monumental stone, bring the spectator back to the "age of the strong-band and the iron-glove;" but the statue of Watt dispels the illusion, and reminds us how the busy world outside the Abbey walls has been moving on, and the very face of society been changed.

A description of the various monuments and sculptures in the Abbey would be much too long for the present article; but there is so much of history connected with many of them, that we cannot avoid a passing notice. Fox's monument is a beautiful work of art;—the negro kneeling at the feet of the dying orator is an admirable production, as well as historically expressive of the statesman's exertions, which laid the foundation for the abolition of the slave trade: nor is the statue of his great rival, Pitt, at so great a distance to destroy the force of Scott's allusion:—

"Deep upon Fox's grave the tear,
'Twill trickle to his rival's bier!"

Pitt's monument is of colossal magnitude, and is the

production of Richard Westmacott, who also designed and executed the one to Fox. The monument of Earl Mansfield is also worthy of that eloquent judge; and equally so is that of the great Earl of Chatham. There is also one erecting to Mr. Canning. These are in the northern transept of the Abbey, which seems in some measure to be reserved for illustrious and eloquent statesmen, as the "Poets' Corner," in the south-east, is the peculiar abode of those whose works will live while the English language exists. There is a singular feeling of melancholy pleasure excited by viewing Addison's monument, who himself used to wander among those tombs, and meditate upon the "field of graves" enclosed within the precincts of the Abbey.

In the Chapel of St. Edward the Confessor, which originally formed the eastern termination of the Abbey church, lie the remains of the royal founder, encircled by the ashes of succeeding sovereigns, some of whom were the greatest and most heroic that ever swayed the British sceptre. King Edward's shrine stands nearly in the middle of the chapel, and had formerly an altar attached to it, at which multitudes of every degree have made their oblations, and besought the intercessional agency of the sainted monarch. "Such great sanctity," says Brayley, "is still attached to this shrine, that a part of the stone-basement seat, on the east side of the south transept, has been worn into a deep hollow by the feet of devout Catholics, who occasionally attend here early of a morning, and who, from that point, can just obtain a view of the upper division of the shrine. It is still, also, within the recollection of some aged members of the church, that, previously to the French Revolution, the very dust and sweepings of the shrine and chapel of St. Edward were also preserved, and exported to Spain and Portugal in barrels! But even in that trade *adullerations* were practised, and much unholy dust, swept from other chapels, was mingled with the rubbish of this shrine."

In this chapel stands that celebrated object of popular curiosity the, *Coronation Chair*. Inclosed within the frame-work is the far-famed stone brought from Scone, in Scotland, by Edward I. Traditions innumerable have been connected with this otherwise uninteresting stone;—the old legends actually affirming that it formed Jacob's pillow on that memorable night when he saw the vision of the ladder reaching to heaven. That, however, it is of very considerable antiquity there is little reason to doubt; but we are not prepared to admit with Sir James Ware and the Irish historians, that it was brought into Ireland by a colony of the *Tuath de Danaus*, and that it had the property of issuing sounds resembling thunder whenever any of the royal Scythian race placed themselves on it for inauguration; and that he only was crowned King of Ireland under whom, when placed on it, the stone groaned and spake! Nor does there seem very strong grounds for believing that Fergus, the first King of Scotland, brought it with him from Ireland, and was crowned upon it in the year of the world 3641; or before Christ, 330. These legends and traditions are scarcely worth attention. If the stone itself were curious as a work of art, it would be, on that account, an object of considerable interest; as it is, we see nearly as little value to be attached to it as to any useless relic of the middle ages. It is certain that it was deemed of vast importance by the Scotch;—that its restoration formed the subject of an article in a treaty of peace, and also of a political conference between Edward III. and David I.;—but this, of course, was the result of the superstitious value assigned to it, and the common belief, in those times of ignorance, that success attended the nation as long as it retained it in its keeping. Mr. Brayley, who has investigated the history of this "rude and unwrought" stone with some

patience, has also given us a mineralogical description of it, obtained from the late Mr. Sowerby, who accompanied him to the Abbey for the purpose. In the technical language of mineralogy, it is "a sandy granular stone; a sort of debris of sienite,—chiefly quartz,—with light and reddish-coloured felspar, and also light and dark mica, with probably some dark-green hornblende intermixed: some fragments of a reddish-grey clay slate, or schist, are likewise included in its composition." In plain words, it bears much resemblance to the 'Dun-stones,' such as are brought

from Dundee in Scotland, and used for various purposes. It is, therefore, somewhat strange that the various authors who have mentioned it should all have termed it "a marble stone." Indeed, the actual identity of the stone, as being the one on which the kings of Scotland were crowned, has been strongly contested.

The Coronation Chair is composed of oak, and is still firm and sound, though much disfigured by wanton mutilations and the effects of time. It is scratched over with impertinencies, in the shape of ill-formed initials,—a mean and vulgar habit, which we wish our

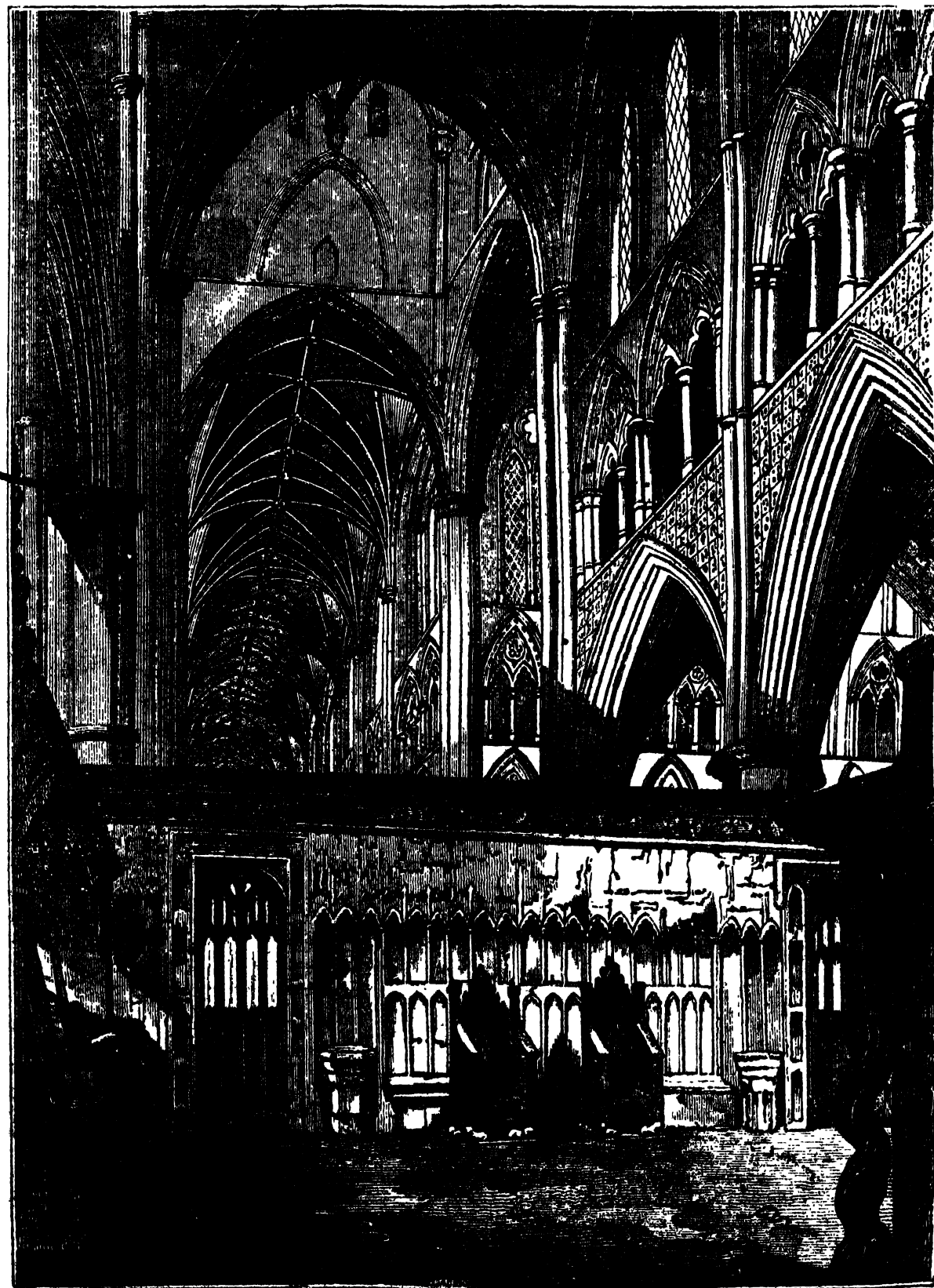


[North Aisle, looking West.]

countrymen had sense and taste to abjure. Yet it is with some pleasure we remark, that the more recent monuments are free from marks and injuries, evincing either that a better watch is now maintained, or a better feeling actuates the majority of the visitors.

The coronation of the kings of England in this Abbey forms one of its peculiar features of interest. For the regulation of this august ceremony, Malcolm tells us, a most magnificent book was compiled in very remote times, and kept among the archives of the

monastery. It was unfortunately burnt, in 1644, along with many others; out of 230 MSS., but one was saved. It seems, however, that a copy or an abridgment of the book constitutes one of the Harleian manuscripts. For a long series of ages have those splendid scenes been acted within the walls of the Abbey—one monarch "sleeping with his fathers," and gathered to his last repose, amid nodding plumes, and prelates and nobles following the bier with measured and silent pace; another approaching with the sound of trumpet, and



[The Nave, looking West from St. Edward's Chapel.]

the echoing shouts and resounding cries of a nation, to step into the vacant seat. Some of the coronations have been scenes of extraordinary magnificence. Henry the Seventh's was deficient in show: he seems to have transferred his coronation pomp to his funeral. But his son, the Eighth Harry, atoned for the deficiency. The excess of magnificence displayed seems to have surpassed that of all previous occasions. Whatever could dazzle the eye in the rich barbaric pomp of the time was exhibited. To render the excess of magnificence safe, conspicuous, and clean, the streets were railed, barred, and swept; and that the general view might not be incongruous, by the eye wandering from pomp to wretchedness,—from sparkling gems and shining velvets to smoked and dirty plaster,—the fronts of the houses were hung with tapestry and arras. Upon this occasion great part of the south side of Cheapside was covered with cloth of gold. The different city companies were arranged on stages from Grace-church westward. The goldsmiths had virgins clad in white placed before them, bearing burning tapers; and numbers of priests in the rich vestments of the altar lined the way, some bearing crosses, and others burning incense before the royal pair. After a lapse of three centuries, the coronation of George the Fourth is remarkable as being the only one in modern times which was celebrated with extraordinary splendour.

Another circumstance connected with the Abbey is the funeral of Oliver Cromwell. He was buried in Henry the Seventh's Chapel, with a pomp little reconcileable to republican notions. The walls were hung with escutcheons to the number of 240. The hearse had twenty-six large, embossed shields; twenty-four smaller, with *crowns*; sixty badges (his crest), and thirty-six scrolls, with *mottos suited to his merit*, placed on it. His effigies were carved, and superbly arrayed; and a velvet pall of eighty yards was borne over all. After the Restoration, his body was exhumed, and hanged on a gallows at Tyburn!

The late Musical Festival is too important to be passed over, in our account of the Abbey. We shall introduce it by an account of previous festivals, abridged, together with the account of the late one, from the 'Musical Library.'

The first instance in which music appears to have been formally introduced in aid of charity, in Great Britain, was at the Anniversary of the Sons of the Clergy, in 1709, when the celebrated Dr. Atterbury preached at St. Paul's. From this time the practice was continued till 1739, when, by a mutual agreement, the Royal Society of Musicians engaged to provide a band for two annual performances for the sum of 50*l.*, which performances take place in St. Paul's Cathedral in the month of May, and at which the 'Overture to Esther' has been so constantly played, almost ever since it was composed, that it now seems in a peculiar manner dedicated to the service of the church.

In 1738, just at the time when the original and pleasing melodies of Dr. Arne began to have a powerful influence on the national taste, and to form an era in English music, the institution of the Fund for the Support of Decayed Musicians not only provided relief for the indigent and distressed, but set an example which has since been followed by other associated bodies in this country, at Vienna, and in other parts of Europe. By rather a singular coincidence, Handel, then in great pecuniary straits, was, with the utmost difficulty, persuaded to appeal to the gratitude of the public, and cleared 800*l.* by a benefit concert. Handel's 'Messiah' was first performed in Dublin, and was consecrated to charity, the proceeds being given by the

great musician for the benefit of the city prison. Handel afterwards performed it annually for the benefit of the Foundling Hospital in London; and after his death, it was brought forward by Mr. Smith and Mr. Stanley until 1777, producing in twenty-eight years a sum of 10,000*l.*

The commemoration of Handel, which took place in Westminster Abbey in 1784, exactly half a century ago, forms one of the greatest musical epochs, and is recognized as such, not only by our own writers and professors, but by those of every other country; for no event of the kind, indeed no exhibition of art, ever excited so general an interest. The commemoration took its rise in a conversation between Viscount Fitzwilliam, Sir W. W. Wynne, and Josiah Bates, Esq., Commissioner of the Victualling Office, at the beginning of the year 1783. It occurred to these enthusiastic admirers of Handel, that the birth and death of that great master would be an occasion on which their scheme might be properly introduced; and as the year 1784 would form a complete century since his birth and a quarter of a century from his death, it was resolved to attempt it. The plan was communicated to the Governors of the Musical Fund, who approved of it, and promised their assistance. It was next submitted to the Directors of the Concert of Ancient Music, who voluntarily undertook the trouble of managing and directing the celebration. At length the design coming to the knowledge of the King, (George III.) it was honoured with his Majesty's sanction and approbation. Westminster Abbey, where the bones of the great musician were deposited, was thought the fittest place for the performance; and application having been made to the Bishop of Rochester (Dr. Thomas, Dean of the Abbey) for the use of it, his Lordship readily consented; only requesting, as the performance would interfere with the annual benefit of the Westminster Hospital, that part of the profits might be appropriated to that charity. To this the projectors of the plan readily acceded; and it was afterwards settled, that the profits of the first day's performance should be equally divided between the Musicians' Fund and the Westminster Hospital, and those of the subsequent days should be applied to the former exclusively.

The commemoration accordingly took place on the 26th of May, 1784, and four additional days. The Abbey was fitted up with surpassing elegance by Mr. Wyatt, the architect. At the east end of the aisle, a throne was erected in the Gothic style, and a centre box, richly decorated, and furnished with crimson satin, fringed with gold, for the reception of their Majesties and the Royal Family; on the right hand of which was a box for the Bishops, and on the left one for the Dean and Chapter of Westminster. The orchestra was built at the opposite extremity, ascending regularly from the height of seven feet from the floor, to upwards of forty feet from the base of the pillars; and extending from the centre to the top of the side aisles. At the top of the orchestra was placed the organ, in a Gothic frame. The choral bands were placed on steps, seemingly ascending into the clouds, on each of the side aisles. The instrumental band amounted to 513, and on the third day was increased to 535. "In celebrating the disposition, discipline, and effects of this most numerous and excellent band, the merit of the admirable architect who furnished the elegant designs for the orchestra and galleries must not be forgotten; as, when filled, they constituted one of the grandest and most magnificent spectacles that imagination can delineate. All the preparations for receiving their Majesties, and the first personages of the kingdom, at the east end,—upwards of five hundred musicians at the west,—and the public in general, to the number of three or four thousand persons, in the area and galleries, so wonder-

fully corresponded with the style of architecture of this venerable and beautiful structure, that there was nothing visible, either for use or ornament, which did not harmonize with the principal tone of the building. But, besides the wonderful manner in which this construction exhibited the band to the spectators, the orchestra was so judiciously contrived that almost every performer was in full view of the conductor and leader; which accounts, in some measure, for the uncommon care with which the performers confess they executed their parts."

The success which attended this Commemoration was very great. Two additional days were added to the original number of three, and the additional tickets sold amounted to nearly four thousand. The receipts were 12,786*l.* 12*s.* 10*d.*; and out of this, the Society of Decayed Musicians received 6000*l.*, and the Westminster Hospital 1000*l.* So great was the excitement produced by it, that a series of annual "commemorations" took place for a series of years, the first of which was celebrated in 1785 (exactly a year after the grand commemoration) in the Abbey, under the same patronage and direction as before. The band was increased by the addition of more than a hundred performers; but, on this occasion, the receipts were less, although, singular to say, the expenses were also diminished, notwithstanding the increase of the band. In 1786, the festival was again repeated, and the band also enlarged, so as, on this occasion, to amount to 741 individuals. The proceeds this year came within 400*l.* of the receipts in 1784, but the expenses were increased. The public appetite being rather excited than satiated, a fourth grand festival took place in 1787, with still an increase in the band, which now amounted to 825, including the principal singers, twenty-five in number. On this occasion the receipts rose to 14,042*l.*, proving the interest of the public to be still on the stretch. But during the two succeeding years, there were no renewals of these splendid scenes,—the state of the king's health being the principal cause why they were suspended. They were again renewed in 1790, and finally in 1791, when the performers were increased to the astonishing number of 1667. But though tolerably well attended, the tickets were not demanded with the same avidity as before; the edge of novelty was blunted; the expenses of the performances were increased, and the means of defraying them diminished. At this last Abbey-meeting the immortal Haydn, then on his first visit to this country, was present; and from it derived a deep reverence for the mighty genius of Handel, which, to the honour no less of his candid modesty than of his judgment, he was ever ready to avow.

The late Festival does not appear to have given such entire satisfaction as might have been expected. There were a few present who had also been present at the "Commemoration" in 1784; and one of them, to whom the character of an unbiassed judge is given, is by no means disposed to allow that the palm was borne away from the first grand celebration. The editor of the 'Musical Library' assigns as one cause of failure the immense quantities of cloth with which the galleries, the orchestra, and the benches were covered. Cloth being a non-conductor of sound, the grand combined effect of the orchestra was deadened by the absorbing medium through which the volume of sound had to pass in reaching the audience. In 1784, and subsequent years, the fronts of the galleries and orchestra were covered with coloured paper; a very small, light festoon, of fringed crimson moreen, hanging as a finish from the cushions on the ledges. Those who heard the music in York Cathedral, in 1825, declare that, with about the same number of performers,

but in an area more than double that of Westminster Abbey, and of course requiring a proportionate body of sound to fill it, the effect was greater than that just witnessed in the capital of the empire.

As a set-off against the assumed deficiencies, it is admitted that the performers, on the present occasion, excelled in every way those who formed the orchestra on the different festivals at the close of the last century. The force employed in the full pieces amounted to 591; and the band generally, both instrumental and vocal, can only be mentioned in terms of the highest praise. On the first day, Tuesday, June 24th, very shortly after the doors were opened, the place was crowded,—their Majesties arriving about a quarter past twelve, accompanied by the Duchess of Kent, the Princess Victoria, and other illustrious personages. The scene was certainly imposing; the symmetrical appearance of the vast orchestra,—the number of distinguished personages present,—the great audience, amounting to nearly three thousand, displaying rank, fashion, and beauty, all contributed to produce emotions of a mixed and powerful kind.

The performance on the first day consisted of Handel's Coronation Anthem, 'Zadok the Priest'; Haydn's oratorio of the Creation; and selections from Handel's oratorio of Sampson. On the second day (June 26) was given, first a miscellaneous selection from the works of Handel, Mozart, Beethoven, Haydn, and Sir John Stevenson, and Handel's oratorio of Israel in Egypt. The third day was a miscellaneous selection; the first part being from Handel's oratorio of Judas Maccabæus; the other two parts being selected from the works of Handel, Mozart, Beethoven, Haydn, Pergolesi, Leo, Himmel, and Purcell,—this appears to have been the least attractive of the performances, and, though well attended, the tickets are stated not to have been so eagerly sought after as on the other days. The fourth performance (on Tuesday, July 1) closed the Festival, with Handel's magnificent oratorio of the Messiah, with the additional accompaniments of Mozart. This, it is stated, was performed at the particular desire of the Queen, though it is difficult to imagine how on a Commemoration of Handel it could have been possibly omitted. It was on the whole executed in a manner to give great and general satisfaction, and was very fully attended.

In order to the better understanding of the engraving in the following page, we give the description of the arrangements as detailed in the 'Supplement to the Musical Library,' No. 6:—

"The nave of the Abbey is 150 feet long, and, including the aisles, seventy-two feet wide: its height 101 feet. This space was converted into a grand saloon, at the west end of which was erected the orchestra, rising from about eight feet from the floor to the middle of the great window; the principal singers, and the instrumental performers, occupying the nave part,—the chorus filling the portion in the aisles up to the tops of the arches. At the east end the royal box was placed, on the right and left of which were boxes for the court attendants. Below these were, on the right a box for the bench of bishops, on the left one for the dean and prebendaries of the church, and, in the centre, just below their Majesties, the eight directors took their seats. At the same end, and at the back of the line of royal boxes, arose galleries, not included in the original plan, appropriated to the friends of the directors. In each aisle was built a long, deep gallery, extending from the orchestra to the royal boxes, and projecting from the wall to about three feet beyond the columns. The galleries contained several rows of seats, rising to the key-stones of the arches. The aisles below were fitted up in a manner similar to the galleries. The whole floor was covered by planks of wood; and

in the nave, allowing a passage on each side, were ranged thirty-eight rows of transverse benches, each holding sixteen persons."

A minute description cannot be given in our limited space; but we believe the effect produced by the Festival was very great, if we may judge from the anxiously-expressed, though disappointed, wish that it

might be prolonged for a day or two longer. Apart from the objections raised as to the character of the performances, and their alleged inconsistency with the sacredness of religious rites, it must be admitted that their tendency is to promote a love for the higher branches of music, and to have a powerful and beneficial influence on the taste of the nation.



[The Nave (looking East), showing the Royal Box, and the arrangements for the celebration of the Musical Festival; taken from the front of the Orchestra.]

THE PENNY MAGAZINE

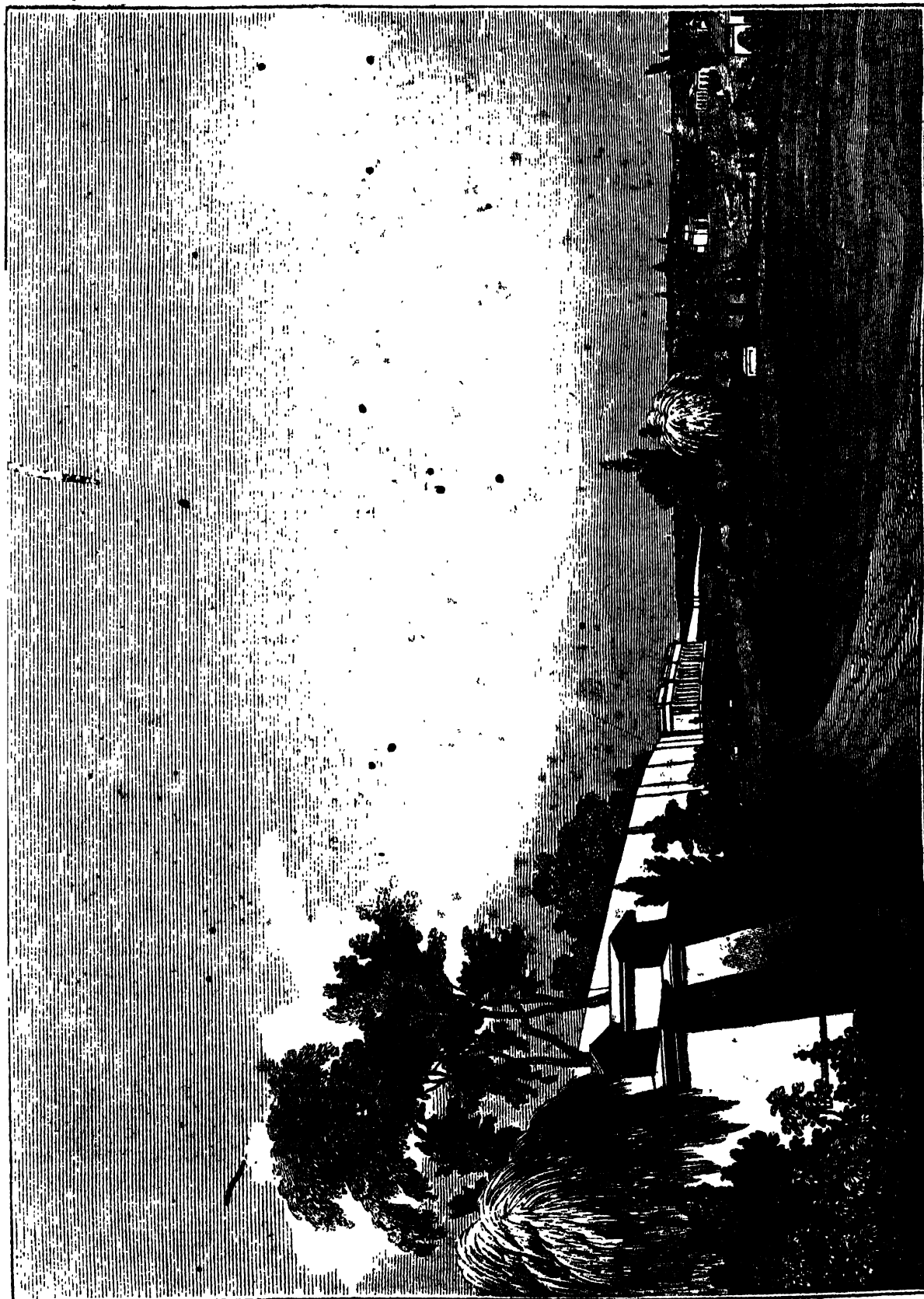
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[August 2, 1834.]

KENSALL-GREEN CEMETERY.



[The Kensall-Green Cemetery.]

THE very evil custom of interring the dead in and near the places devoted to public worship is, to the best of our knowledge, peculiar to Christian countries. Its introduction seems to have been very early; for we find interments within cities altogether prohibited by an edict of the Emperor Theodosius, in which it is very truly stated that such a practice is injurious to the public health, while monuments by the way-side present salutary memorials to the traveller. A person infringing this law forfeited a third of his patrimony; and an undertaker directing a funeral contrary to this prohibition was fined forty pounds of gold.

But when churches were built over the bodies or ashes of saints and martyrs, or their remains were translated to the churches, a strong desire began to be felt that the dead should receive the protection and benefit of such sacred neighbourhoods. Therefore, first the clergy, then kings and persons of rank, and at last the common people, were interred at first round about the church, then in open places attached to the outward wall, which were called "Galilees," and at last within the church itself. The facility which the proximity of the graves to the churches afforded the clergy in performing the customary rites for the dead, not a little contributed to the introduction and continuance of the custom. It is said to have been introduced into this country from Rome about the middle of the eighth century, by Cuthbert, archbishop of Canterbury, so far as church-yard cemeteries are concerned. Lanfranc, also archbishop of Canterbury, is stated to have been the first who brought in the practice of vaults in chancels, and under the very altars, when he had rebuilt the church of Canterbury, about the year 1075. But there is no doubt that graves in churches, for the clergy at least, existed at a much earlier period in this country: witness the story of the re-appearance of St. Dunstan, to complain of the annoyance he underwent from the interment of the son of Earl Harold in the same church with him. However, from the time of Lanfranc, the practice seems to have prevailed in London without interruption until the Great Fire in 1666, which effected a very complete destruction of the churches, and, together with them, of the contents of the vaults and church-yards attached to them. The evil of the practice had become apparent before that event, and considerate people lamented that advantage was not taken of the calamity to introduce a better system. "I cannot but deplore," says Evelyn in his 'Sylva,' "that when that spacious area was so long a *rasa tabula*, the church-yards had not been banished to the north walls of the city, where a grated inclosure, of competent breadth for a mile in length, might have served for an universal cemetery to all the parishes, distinguished by the like separations, and with ample walks of trees, the walks adorned with monuments, inscriptions, and titles, apt for contemplation and memory of the defunct." That this, or something like this, was not then done cannot seem very surprising, when we perceive that, at this more enlightened day, people exhibit no great alacrity in availing themselves of advantages somewhat resembling those which the excellent Evelyn wished to afford.

Within some of the metropolitan churches there are regular graves under the aisles and the pews, the same as in church-yards; in others, "pits," or vaults, (not bricked, but of earth,) the entrance into which is from within the building. In others, the vents of the vaults are actually within the church. Thus in various ways pestilential effluvia are sent through the building. A candle will not always burn in the vaults beneath, and it is sometimes necessary to leave the entrance to them open for several hours before it is considered safe to enter. Mr. Carden, in his petition to parliament on the subject of a general cemetery, speaks of one church in which he understood that the use of fires had been abandoned,

owing to the increased effluvia which was found to arise from the vaults under the church; and, in another part of the petition, the same gentleman, who has given much attention to this subject, states that, in the year 1825, he entered the vaults of St. Dunstan's church in Fleet Street, and found that the dead were there deposited in coffins of wood only, and saw the coffins below crushed by others placed upon them, and the remains of a recently-interred corpse forced in part out of the coffin, and in a state of decomposition too disgusting to be described. Even if this were a singular accident, still a system under which such accidents could occur ought not to be maintained.

The invariable use of lead coffins might, in some measure, prevent such effects as we have stated; but it has been ascertained that in the vaults of a city church, where lead coffins were always required, the air had become so vitiated, that lighted candles attempted to be carried in were immediately extinguished. It appears, in fact, that no arrangements can make it cease to be an evil to bring together the bodies of the dead where the living inhabit and congregate. Under the best arrangements which might, by careful vaulting and excluding all communication with the interior of the church, keep it tolerably free from the taint, still the surrounding air must be contaminated by the effluvia escaping through the open gratings made to render the vaults in any degree fit for entrance; thus effecting no more than a transference of the nuisance from the church to the church-yard.

But the church-yard itself is a great nuisance, particularly when closely hemmed in by houses on all sides, as is usually the case in London. The burial-grounds are of such limited extent, and have been long in use, that instances are related in which a lighted candle will not burn when placed in a newly-opened grave, or even upon the thrown-up soil. "In large towns," says the 'Quarterly Review,' "and more especially in the metropolis, it has become more difficult to find room for the dead than the living. The Commissioners for the Improvements in Westminster reported to parliament, in 1814, that St. Margaret's church-yard could not, consistently with the health of the neighbourhood, be used much longer as a burying-ground, for that it was with the greatest difficulty a vacant place could at any time be found for strangers: the family-graves generally would not admit of more than one interment, and many of them were too full for the reception of any member of the family to which they belonged. There are many church-yards in which the soil has been raised several feet above the level of the adjoining street by the continual accumulation of mortal matter; and there are others in which the ground is actually probed with a borer before a grave is opened! Many tons of human bones are every year sent from London to the north, where they are crushed in mills contrived for the purpose, and used as manure. Yet with all this clearance, the number of the dead increases in such frightful disproportion to the space which we allot for them, that the question has been started whether a sexton may not refuse to admit iron coffins into a burial-place, because by this means the deceased take a fee simple in the ground which was only granted for a term of years? A curious expedient has been found at Shields and Sunderland. The ships, which return to these ports in ballast, were at a loss where to discharge it, and had of late years been compelled to pay for the use of the ground on which they threw it out. The burial-grounds were full: it was recollected that the ballast would be useful there, and accordingly it has been laid upon one layer of dead to such a depth that graves for a second tier are now dug in the new soil." When, for the sake of gaining room, a greater depth is required, it frequently happens that

a passage is opened through ground already tenanted.

These facts certainly warrant the conclusion that the vaults and graves are insufficient for the increased and increasing population of the metropolis; and from this insufficiency circumstances result which are revolting, whether considered with regard to the public health, or to that decency and respect with which surviving friends very properly desire that the remains of the dead should be treated. Public attention has, of late years, been in various ways drawn to this important subject, and we doubt not that every thing has been done for the best which the continuance of the evil itself allowed. But the only effectual remedy is the complete discontinuance of the existing practice. We are happy to find that interments in vaults under churches begins to be discouraged, and in some instances are not allowed. And we understand that the commissioners for building the new churches could rarely obtain sites for the purpose, until they altogether abandoned the intention of having cemeteries in connexion with such churches. This very proper determination was very general among the owners of land in London; and it is in consequence of this that few of these churches have ground attached to them; and, where there is an open space, the parishes are strictly bound not to use it for purposes of burial: nevertheless, it appears from a recent return on the subject made to parliament, that several of the new churches which have no church-yards have vaults underneath the building.

After these statements, we should much regret to have to say that nothing had been done towards the introduction of a better system. But something has already been effected, and more has been planned. We shall, in the present paper, confine our attention to the measure which has been brought into actual operation under the direction of the General Cemetery Company. The cemetery established by this body must now, and in future time, be regarded with peculiar interest, as the first practical attempt to remedy a great public inconvenience. The metropolis, however, will not be entitled to claim the merit of having first introduced this important public improvement of detached public cemeteries into this country; since such cemeteries had been previously established at Liverpool, Manchester, and other places.

We believe that the public attention was first, in our own time, strongly drawn to the necessity of establishing detached cemeteries for the metropolis, by Mr. G. F. Carden; and after long-continued exertions by that gentleman, dating as far back as 1824 or 1825, an Act was passed, in 1832, "for establishing a general cemetery for the interment of the dead in the vicinity of the metropolis." This Act invests the Association with the usual privileges of an incorporated body, and authorizes it to do what it has since in a great measure accomplished, and which we shall now proceed to describe with rather more brevity than would have been desirable, had we not recently described the cemetery of Père la Chaise, which afforded the model that seems to have been as closely as possible followed in the Kensall-Green Cemetery.

Previous to the passing of the Act of Incorporation a very eligible piece of land had been provided, consisting of forty-eight acres, and situated on a rising ground to the north-west of the metropolis, about a mile and a half beyond Paddington, on the Harrow road. From this spot, which extends between the road and the Paddington canal for about a quarter of a mile, a very delightful view, bounded by the Surrey hills, is commanded over the western environs of the metropolis. That this view may not be excluded, the high wall which incloses the cemetery is in some parts broken by an iron railing of equal height. The ground, thus

inclosed, is laid out in gravelled roads of sufficient width for carriages, and planted with forest trees, evergreens, and other shrubs and flowers.

An arched gateway is placed towards the eastern extremity of the cemetery, and conducts into the unconsecrated ground, which has been appropriated to the interment of persons whose friends desire a funeral ceremony different from that of the Church of England. This spot consists at present of about four acres. Only three interments have as yet taken place there; but the finest building that the cemetery at present affords has been erected on it. This is the Chapel for the performance of burial rites. It occupies the centre of a colonnade, and the front presents a pediment supported by four columns of the Ionic order. Its interior arrangements are neat, but perfectly simple, and well adapted to the purpose for which it is intended.

The unconsecrated ground in the Kensall-Green Cemetery is separated from the consecrated by a sunk fence. Looking westward from this line of separation over the consecrated ground, the visitor has before him a long vista of slightly-ascending ground, the termination of which is concealed by trees and shrubs. We have already stated how the spot is laid out. There is not much in the first view to inform a person of the purposes to which the place is devoted. The ground was only opened in the early part of 1833, and since then we are informed that 193 interments have taken place; but many of these are in the subterranean catacombs; and those in the open ground are so dispersed that the monuments are by no means the first objects to attract the eye. We did not give anything like a detailed attention to the graves, but we were most interested by a lowly grave covered in with cut stones, and with myrtles planted around: "To the best of mothers, who reposes here in peace," is the simple inscription, in the French language.

The most conspicuous objects in this part of the cemetery are the chapel and the colonnade. The chapel stands nearly in the centre of the ground, and is intended for the performance of the burial service according to the rites of the Church of England. It is a very appropriate little building, though not so large or so handsome as that in the unconsecrated ground; but we were informed that it is only a temporary structure, a site having been reserved for the erection of another on a more extended scale.

Along part of the northern boundary-wall a series of catacombs extends, which are at present calculated to contain about 2000 coffins. The line of these vaults is indicated, above ground, by a colonnade of Greek architecture, designed for the reception and preservation of tablets and other monuments in memory of the persons whose bodies are deposited underneath. The coffins intended to be deposited in the catacombs are received upon a sort of platform, which descends slowly during the performance of the funeral ceremony; and they are afterwards conveyed by machinery through the subterranean passage to the places where they are to be laid.

The employment of leaden coffins is indispensable in the catacombs, and in vaults or brick graves in the grounds; but in common graves in the grounds, purchased in perpetuity, the coffins may be of lead or wood at the option of the purchaser. When, however, the perpetual right to a grave is not purchased, the coffin must be of wood only. In the latter case, also, monuments cannot be placed upon the grave; but when the perpetual right is purchased, any monument may be erected without additional charge. The right to a grave purchased in perpetuity is so well defined, that it may be the subject of a bequest by will, or an assignment, in the same manner as other property. It is important to state this, because in the ordinary church-

yards it is impossible to secure a grave in perpetuity at all, unless by the expensive means of a faculty; and consequently the mere placing of a monument upon a grave does not prevent its being afterwards used for persons not members of the family.

We have thus stated the points which seem of leading interest or importance in this establishment; and although, in the great extent of ground it affords, not more than 193 interments have taken place in a year and a half, while we could indicate a burial-ground of less than two acres in the metropolis in which upwards of 500 bodies were interred in the year 1832*; yet, considering the prejudices that were to be overcome, the encouragement which the new cemetery has received already is greater than we should have expected. We make no question that many years will not elapse before such suburban cemeteries will have completely superseded those which now make the dead divide the largest city of Europe with the living. But such cemeteries can hardly be brought into full operation until the chief inducement, among the labouring classes, to the interment of the dead in the nearest ground has been removed, by diminishing the expense and labour of conveyance to a more distant place. We do not see why the persons connected with the cemeteries might not themselves organize a system of conveyance, with a scale of various prices and vehicles, which might afford to all but the extreme poor the means of decently but cheaply conveying their dead to "the house appointed for all living."

We understand that it is in contemplation to establish another cemetery, also on the plan of Père la Chaise, at Bayswater, about two miles from Oxford Street, on the Uxbridge Road. In describing that which is already established, we have, however, exhausted the

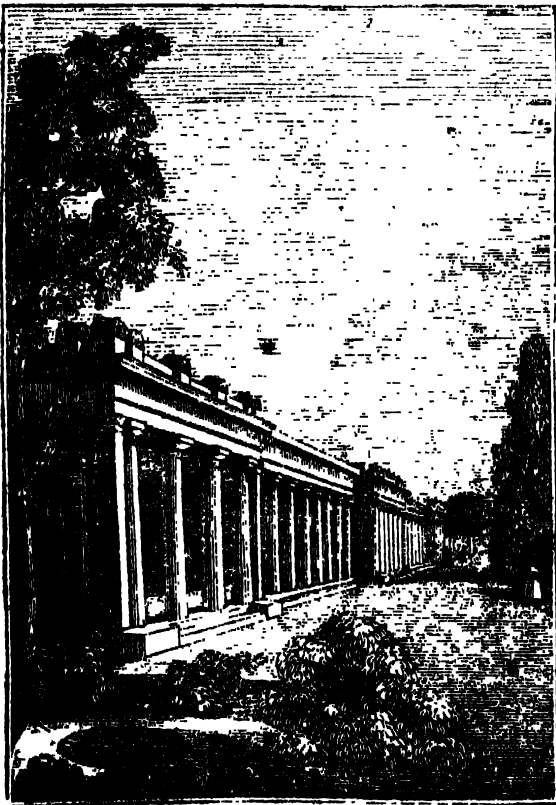
space we can afford to give to the subject, and the difference between it and the one proposed does not appear to be so considerable as to require a separate notice.

THIRST QUENCHED WITHOUT DRINKING.

It may not be generally known to our readers that water, even salt water, imbibed through the skin appeases thirst almost as well as fresh water taken inwardly. In illustration of this subject, a correspondent has sent us the following abridged quotation from a 'Narrative of Captain Kennedy's losing his Vessel, and his Distresses afterwards,' which was noticed in 'Dodsley's Annual Register for 1769.' "I cannot conclude without making mention of the great advantage I received from soaking my clothes twice a day in salt water, and putting them on without wringing. It was a considerable time before I could make the people comply with this measure, although from seeing the good effects produced, they afterwards practised it twice a day of their own accord. To this discovery I may with justice attribute the preservation of my own life and six other persons, who must have perished if it had not been put in use. The hint was first communicated to me from the perusal of a treatise written by Dr. Lind. The water absorbed through the pores of the skin produced in every respect the same effect as would have resulted from the moderate drinking of any liquid. The saline particles, however, which remained in our clothes became incrustrated by the heat of the sun and that of our own bodies, lacerating our skins and being otherwise inconvenient; but we found that by washing out these particles, and frequently wetting our clothes without wringing twice in the course of a day, the skin became well in a short time. After these operations we uniformly found that the violent drought went off, and the parched tongue was cured in a few minutes after bathing and washing our clothes; and at the same time we found ourselves so much refreshed as if we had received some actual nourishment. Four persons in the boat who drank salt water went delirious and died; but those who avoided this and followed the above practice experienced no such symptoms."

Effect of the Atmosphere on Hair.—My own beard, which in Europe was soft, silky, and almost straight, began immediately after my arrival at Alexandria to curl, to grow crisp, strong, and coarse; and before I reached Es-Souan resembled hare hair to the touch, and was all disposed in ringlets about the chin. This is, no doubt, to be accounted for by the extreme dryness of the air, which, operating through several thousand years, has, in the interior, changed the hair of the negro into a kind of coarse wool.—*St. John's Travels.*

Life prolonged by Civilization.—If we collect England, Germany, and France in one group, we find that the average term of mortality which, in that great and populous region, was formerly one in thirty people annually, is not at present more than one in thirty-eight. This difference reduces the number of deaths throughout these countries from 1,900,000 to less than 1,200,000 persons; and 700,000 lives, or one in eighty-three annually, owe their preservation to the social ameliorations effected in the three countries of western Europe whose efforts to obtain this object have been attended with the greatest success. The life of man is thus not only embellished in its course by the advancement of civilization, but is extended by it and rendered less doubtful. The effects of the amelioration of the social condition are to restrain and diminish, in proportion to the population, the annual number of births, and in a still greater degree that of deaths; on the contrary, a great number of births, equalled or even exceeded by that of deaths, is a characteristic sign of a state of barbarism. In the former case, as men in a mass reach the plenitude of their physical and social development, the population is strong, intelligent, and manly; while it remains in perpetual infancy, whole generations are swept off without being able to profit by the past,—to bring social economy to perfection.—*Philosophical Journal.*



[Colonnade over the Catacombs at Kensall Green.]

* From a recent parliamentary return, it appears that in 134 parish-churches and burial-grounds, 24,606 bodies were interred in 1832; yet the collective extent of accommodation amounted to no more than 113 acres, little more than double that afforded by the single cemetery at Kensall Green.

RUBENS' 'DESCENT FROM THE CROSS.'



['Descent from the Cross,' by Rubens.]

As the fourteenth Number of the 'Penny Magazine' contains a Memoir of Rubens, with some notice of the wonderful facility with which his works were executed, we have only to append to our wood-cut of his famous picture of the 'Descent from the Cross,' a few remarks

on his style, with some account of the painting more immediately under our notice. In discharging the former duty, we cannot do better than avail ourselves of the general character of Rubens as a painter which has been given by Sir Joshua Reynolds. He considers

that in the works of Rubens the art of the painter is frequently too apparent, and then proceeds to say—"His figures have expression, and act with energy, but without simplicity or dignity. His colouring, in which he was eminently skilled, is, notwithstanding, too much of what we call tinted. Throughout the whole of his works there is a proportionable want of that nicety of distinction and elegance of mind which is required in the higher walks of painting; and to this want it may in some degree be ascribed, that those qualities which make the excellence of this subordinate style appear in him in their greatest lustre. Indeed, the facility with which he invented, the richness of his composition, the luxuriant harmony and brilliancy of his colouring, so dazzled the eye, that, while his works continue before us, we cannot help thinking that all his deficiencies are fully supplied."

Most of the works of Rubens indicate the rich and splendid tone of his imagination. He seems on all occasions to have abandoned himself almost entirely to his own feelings, and to have been guided exclusively by his own impressions, deriving less assistance perhaps than any other painter from sources out of himself. He is, therefore, eminently original; and if, in all his numerous works, a few instances can be found in which he has copied the ideas of other painters, it is evident how well they have been digested, and how skilfully adapted to the rest of his composition. His paintings abound in defects as well as beauties; but they possess the attribute peculiar to the works of true genius, that of commanding attention and enforcing admiration. It is difficult to say which branch of his art Rubens cultivated with most success. In history, portraiture, animals, landscape, or still life, his brilliant imagination and skilful execution are equally apparent. His animals, particularly his lions and horses, are so admirable, that it has been said they were never so properly, or at least so poetically painted as by him. His portraits rank with the best productions of those who made that branch of the art their exclusive study; and in his landscapes, which combine the lustre of Claude Lorraine with the grandeur of Titian, the picturesque forms of his rocks and trees, the deep tones in his shady glades and glooms, the sunshine, the dewy verdure, the airiness and facility of his touch, exhibit a charin and variety of invention which fascinate the observer. In the mechanical part of his art, Sir Joshua Reynolds thought Rubens the greatest master that ever existed. His defects, which are neither few nor unimportant, consist chiefly of inelegance and incorrectness of form; a want of grace in his female figures, of which that buxom one of Salomé, in the present picture, is an instance. All his subjects, of whatever class, are equally invested with the gay colours of spring. A very general want of sublimity and poetical conception of character may also be discovered in his pictures; and the good taste of the mixture of truth and fiction presented in his famous allegorical pieces has been strongly questioned by some writers. There is, perhaps, no painter whose style has been so much described and discussed as that of Rubens; but we must now leave this for a more particular consideration of the picture before us, the following account of which is derived, with some abridgment, from the article which, in the 'Musée Français,' illustrates the engraving from which our wood-cut is copied.

This picture is one of the most celebrated of Rubens' productions. It was painted by him for the cathedral of Antwerp; where Mr. Beekford informs us that he saw it in the year 1780, and adds:—"A swingeing St. Christopher, fording a brook with a child on his shoulders, cannot fail of attracting attention. This colossal personage is painted on the folding doors that conceal the grand effort of art just mentioned from

vulgar eyes; and here Rubens has selected a very proper subject to display the gigantic boldness of his pencil." After the picture had remained 200 years at Antwerp, it was transferred to Paris, and formed one of the chief ornaments of the Gallery of the Louvre for the twenty years previous to 1815, when it was comprised among the numerous works of art which were restored to their original owners. The painting was executed by Rubens soon after his return from his seven years' residence in Italy, and while the impression made by the works of Titian and Paul Veronese was yet fresh in his mind. The great master appeared in the fulness of his glory in this work—it is one of the few which exhibits in combination all that nature had given him of warmth and imagination, with all that he had acquired of knowledge, judgment, and method; and in which he may be considered fully to have overcome the difficulties of a subject which becomes painful and almost repulsive when it ceases to be sublime.

When, in viewing the original of the splendid work, the general character of which alone our wood-cut can aspire to exhibit, the mind can descend to details, from the first grand impression it cannot fail to make, new beauties and perfections are discovered, and the only employment of the informed judgment is to sanction the feeling which the first impression created.

As the attention is directed in succession to the principal figures, that of Christ claims the strongest admiration. Death can hardly be more touchingly exhibited than in that pale, drooping, and blood-stained body. Then our notice descends to the natural action of all the characters, and the vivid expression of their love and grief. When we proceed to examine the structure and execution of this splendid work, we find that a single pyramidal group exhibits around Christ, upon a somewhat circular base, the three Maries and five of the disciples, all occupied in the same action. Two of the disciples, mounted upon the cross, let down the body of Jesus, which descends in an inclined posture, one of the disciples having just relinquished the hold which the other retains. Joseph of Arimathea, a little less elevated than these two disciples, supports the declining body under the arm; while the beloved disciple, placed on the ground, receives in his arms the descending corpse of his Lord. The Virgin, full of tears and weakened by her sorrows, raises the maternal hands which nursed him when a child, and seems to seek one last consolation in embracing what remains of her Son and Lord. The obscurity of the horizon announces the sympathy of nature; while, notwithstanding, a light falls from the midst of the clouds upon the body of Christ, and gradually spreads itself over the immediately surrounding objects. The head, the body, and the left arm of Christ, are considered to constitute the finest work which Rubens ever executed. The vast white drapery intended to envelope the sacred body, and spreading from the summit to the foot of the cross, serves as a base to this noble figure, and relieves, by its transparent reflection, the prevailing yellowish and azure tints. This same white drapery is skilfully employed to sustain the general harmony, by fixing the most clear and vivid light on the centre of the group. By this contrivance of the painter all the colours acquire a new intensity, and an eminently picturesque opposition has been established in all the principal parts.

The red tint of the tunic of St. John, and the green drapery of Mary Magdalen, contrasted with the pale body of the Saviour, heighten the apparent projection of the group in front; while the blue mantle of the Virgin, half of which is in shade, the blue and purple tone of the vestments of Joseph of Arimathea, and of the disciple who is seen in the right, serves to round off the sides. In painting this picture Rubens seems to have determined to try by a grand experiment the rule

of Titian, that a group should present the effect of a cluster of grapes. To this experiment he was also invited by his subject, which he has adorned with all the beauties of execution of which it was susceptible.

After this statement, the fame even of Rubens will allow it to be said, that this admirable work is in some respects faulty and imperfect. But in considering the head and body of Christ, the heads of the Virgin and Joseph of Arimathea, the touch, the *chiaro-scuro*, and the general effect of the whole, minute criticism is disarmed.

Effect of Fear on a Tiger.—A correspondent transmits to us the following curious anecdote, extracted from a letter received from India:—"During the dreadful storm and inundation in Bengal, in May, 1833, the estates of a Mr. Campbell, situated on the island of Sauger, at the entrance of the river Hoogly, suffered so greatly, that out of three thousand people living on his grounds only six or seven hundred escaped, and these principally by clinging to the roof and ceiling of his house. When the house was in this close, crammed state, with scarcely room within it for another individual, what should come squeezing and pushing its way into the interior of the house but an immense tiger, with his tail hanging down, and exhibiting every other symptom of excessive fear. Having reached the room in which Mr. Campbell was sitting, he nestled himself into one of the corners, and lay down like a large Newfoundland dog. Mr. Campbell loaded his gun in a very quiet manner, and shot him dead on the spot."

OLD TRAVELLERS.

WILLIAM DE RUBRUQUIS.—No. II.

Our enterprising monk complains, at a very early stage of his journey, of the quality and small quantity of food allowed him by the Tartars, and, soon after, of the rapidity with which they made him travel. He says, they ate all sorts of flesh, even that of animals dead by disease. He seems, however, to have conquered his aversion to horse-flesh, and informs us that the sausages the Tartars made of the intestines of their horses were better than pork-sausages.

With their train of waggons they travelled for several weeks across the steppes which separate the Dnieper from the Tanais, or River Don. Near to the latter river, they found the great Sartach, of whom they were in search, and who, without professing himself a Christian, recommended them to go on to his father, or father-in-law, the still greater Baatu. After many sore fatigues, they reached the encampment of Baatu; but even he could not treat with them, or so much as grant them permission to stay in the country. He however gave them a civil audience, and sent them forward in search of Manchu-khan, the great Tartar emperor, who was to be found somewhere in the direction of China. For five weeks they followed the banks of the Volga, walking on foot nearly all the way. They then left that river and went towards the River Jaik. About this part of their journey they were mounted. We are not informed what became of the ox-waggons with their luggage, &c.; but these matters were already so much reduced by the rapacity of the different tribes they met, that they were probably left behind.

While on the road, the friar and his companions were obliged to keep their horses almost always at full gallop, in order not to be left behind in the desert by their conductors. This break-neck speed was ill suited to the previous sedentary, slow, measured habits of the monks. Some friars, who had attempted this mission before Rubruquis, gave it up in despair when they found they had to gallop all day long, and many days following, without rest, like Tartar couriers. The youth and good constitution of Father William were in his favour; yet it was no ordinary exploit for a

religious recluse, who, in all probability, had never been on the back of a horse before, and who says of himself that he was corpulent and heavy, to keep up with these flying Pagans, who might almost be said to be born on horseback. Where they met with an encampment they changed their horses, but this did not happen more than two or three times a-day, and yet the monk says they went thirty leagues daily. Sometimes, indeed, they travelled two or three days together without finding any people or horses, and then they were constrained not to ride so fast. Scattered here and there in the wide countries he was traversing, Rubruquis found a few Christians, who were chiefly Hungarians, that had been carried off during the incursions of the Tartars into Europe. From these men he received great kindness. One of them understood Latin and psalm-singing, in consequence of which he was in great request at funerals. He also met with the native of a remote part of Asia, who had learned the rudiments of Christianity from a monk of Rubruquis' own order while in Hungary with a Tartar army. As he went further on, he met with people in greater numbers, professing themselves Nestorian Christians; but these, in sober truth, were little better than the idolaters among whom they lived. It is scarcely necessary to say, that Prester John and the great united Christian community he was in search of were nowhere to be found.

In his intercourse with the Tartars he zealously attempted the task of conversion; and those wanderers appear at that time to have been so tolerant, and to have had so much respect for many of the forms and ceremonies of the Catholic church, that his mission, in this way also, might not have proved unprofitable. But Rubruquis was ignorant of their language, and unfortunate in the dragoman, or interpreter, he took with him. This fellow had no taste for sermons, "And thus," says the worthy traveller, "it caused me great chagrin when I wished to address to them a few words of edification, for he would say to me, 'You shall not make me preach to-day; I understand nothing of all you tell me!'" "And then," the friar adds, "he spoke the truth; for afterwards, as I began to understand a little of their tongue, I perceived that when I told him one thing he repeated another, just according to his fancy. Therefore, seeing it was no use to talk or preach, I held my tongue." This interpreter, moreover, was so fond of fermented mare's milk, that he was generally intoxicated.

Rubruquis, however, found the Tartars very fond of the symbol of the Cross, and of being blessed in the Christian fashion. Wherever he went he was asked for his benediction. With the existence of the great head of the Catholic church they were well acquainted; his name had reached the farthest corners of the East: but these Tartars had much the same notion as to the pontiff's longevity that is entertained by certain Asiatics of our own day with regard to the age of the East-India Company, which said Company they fancy to be one very old woman. The Tartars asked Rubruquis if the pope was indeed 500 years old! They likewise inquired whether, in the European countries the monks came from, there was an abundance of sheep, oxen, and horses? Their minute inquiries on this head, and the eagerness they showed for the acquisition of wealth, gave the friar some uneasiness, as he apprehended (what indeed, at the time, was not unlikely) that their numerous hordes would roll on from the Danube to the Tiber and the Seine, pillaging and devastating the best parts of Christendom.

Meanwhile, as the monks proceeded on their journey, "of hunger and thirst, cold and fatigue, there was no end." In places where horses were scarce, two of them were sometimes obliged to ride on one animal, and to keep him up with "great beating and whipping."

"Neither yet," says Rubruquis, "durst I complain, although my horse trotted full sore, for every man was bound to be contented with his lot as it fell."

Although these details, when set down in words, and coupled with the figure of a "corpulent heavy monk" on a Tartar saddle, may be somewhat ludicrous, there is a sort of moral sublimity in the total sacrifice of self and the readiness with which Rubruquis devotes himself to the discharge of his mission. This good man was upheld at once by the enterprising spirit of a true traveller, and by the religious faith that was in him.

After they had travelled for months, and been almost exhausted by fatigue and privation, the Tartars told the monks that they had yet a journey of four more months to perform before they could reach the court of the great khan; and, exaggerating in Oriental fashion the severity of climate that is felt in many parts of the table-land in central Asia, they added that, in the regions through which they would have to pass, if they went onwards, the cold was so intense that it split rocks and trees. "Can you," inquired the Tartars, "support all this?" "By God's help, we may!" said Rubruquis, answering for himself and his companions; and on they went.

The Pagans, however, had the kindness to lend the monks some of their thick sheep-skin dresses, which kept out the cold pretty well. But the quality of their food was not improved, and Rubruquis continues to complain of being obliged to eat, in sorrow and anguish, meat only half cooked, and at times quite raw.

They passed through the courts or encampments of several Tartar princes, who were all much astonished that the monks would accept neither gold, nor silver, nor precious raiment. At almost every place where they stopped they seem to have secured the good will of the Tartars by sundry little services; and although the Pagans could not very well understand the nature of their vows of poverty, or that of their monastic institutions, it appears that in general they respected their motives and the sacrifices they made for the furtherance of their religion.

The information Rubruquis collected as he went on is very curious, and is mingled with the accounts of his own adventures. He tells us, that for a visiter to touch the threshold of a Tartar's door was considered as unpropitious, as, according to modern accounts, the Chinese hold it to be. Whenever he paid a visit he was warned to take care to cross over the threshold into the house or tent, without letting any part of his person or dress come in contact with it as such a contact was sure to bring bad luck.

"Concerning the garments and attire of these Tartars," says our old traveller, "be it known that out of Cataya, and other regions of the East, out of Persia also, and other countries to the south, there are brought unto them stuffs of silk, cloths of gold, and cotton cloths, which they wear in time of summer; but out of Russia, Moxell, Bulgaria the Greater, and Hungaria the Greater, and out of Kersis (all which are northern regions and full of woods), and also out of many other countries of the North which are subject to them, the inhabitants bring them rich and costly skins and furs of divers sorts (which I never saw in our countries), wherewithal they are clad in winter." Except in being somewhat longer, the dress of the women scarcely differed from that of the men. The traveller goes on to inform us, that the ladies all rode on horseback, and astride like the men,—that when abroad they tied on a white veil, which crossed the nose just below the eyes, and descended as far as the breast. His description of their personal appearance is not very flattering. He says, they all daubed over their faces most nastily with grease,—that they were all amazingly fat, and the smaller their noses the more beautiful they were

esteemed. In one instance he fancied that the wife of a great lord must have cut off her nose to attain this beauty, for her face was so flat that he could see no trace of that feature,—a line of black grease existing where the nose ought to have been. No man could have a wife unless he bought her of her parents, who generally sold their daughters to the highest bidder.

The Tartars were expert hunters, and gained a good part of their sustenance by the chase. They hunted on the *ballue* system. A vast multitude of them gathered together, and, spreading into a wide circle, surrounded the country; then, by gradually contracting this circle, they collected the included game into a small space, which the sportsmen entered and despatched their prey with spears and arrows. Rubruquis saw no deer, and very few hares, but many antelopes and wild sheep with prodigious horns. Wild asses also abounded, but they were so shy and swift that they were rarely caught. The Tartars were likewise well acquainted with hawking, having falcons, gyrfalcons, and other trained birds in abundance.

Skins, wool, and horsehair were the main materials of the simple manufactures of this pastoral people. In the absence of hemp, they made strong ropes of sheep's wool mixed with a third part of horsehair. The felts that covered their houses and chests, as well as those they used as beds, the cloths they laid under their saddles, and the caps they wore on their heads in rainy weather, were all made of the same materials. Vast quantities of wool were thus worked up.

The penal code in force among these wandering tribes was sufficiently severe. Murder, adultery, and even fornication, were punished with death,—but a man might do what he chose with his own slave. When a Tartar died, he was mourned for with violent howling, and his family was relieved from taxes or tribute to the chief for a whole year. Most of the hordes raised a large barrow of earth over the dead, and many of those innumerable tumuli that are found in the Crimea, in all that part of Europe between the Danube and the Don, in Asia Minor, and in other countries, and which closely resemble the tombs in the plains of Troy, may be safely attributed to the Tartars. The custom, however, is obvious and simple, and has, from remote antiquity, been common to many nations. The mounds, generally called druidical, that are found in many parts of our own island, differ in nothing from those the traveller meets with in Tartary, or (except in size) in the Troad.

In some other burying-places in Tartary, Rubruquis saw large towers built of burnt bricks, and others of stone, though no stone was to be found near the spot. As he went farther east, he observed other kinds of sepulchres, consisting of large open spaces paved with stone, having four large stones placed upright on the corners of the pavement, and facing the four cardinal points. Here again we are reminded of the druidical remains of our own country.

Pursuing his tedious and most fatiguing route across the measureless flats and wilds of Tartary, our old traveller, on the 26th of December, came to a smooth desert that looked like a sea, for it extended all round to the horizon, and not a mountain, hill, or hillock, was anywhere visible. The next day, with a joyful heart, he and his companions caught sight of the grand khan's court. They hoped to obtain there the rest and refreshment they so much needed, for, from the time of leaving the shores of the Black Sea, they had been seven months on their journey.

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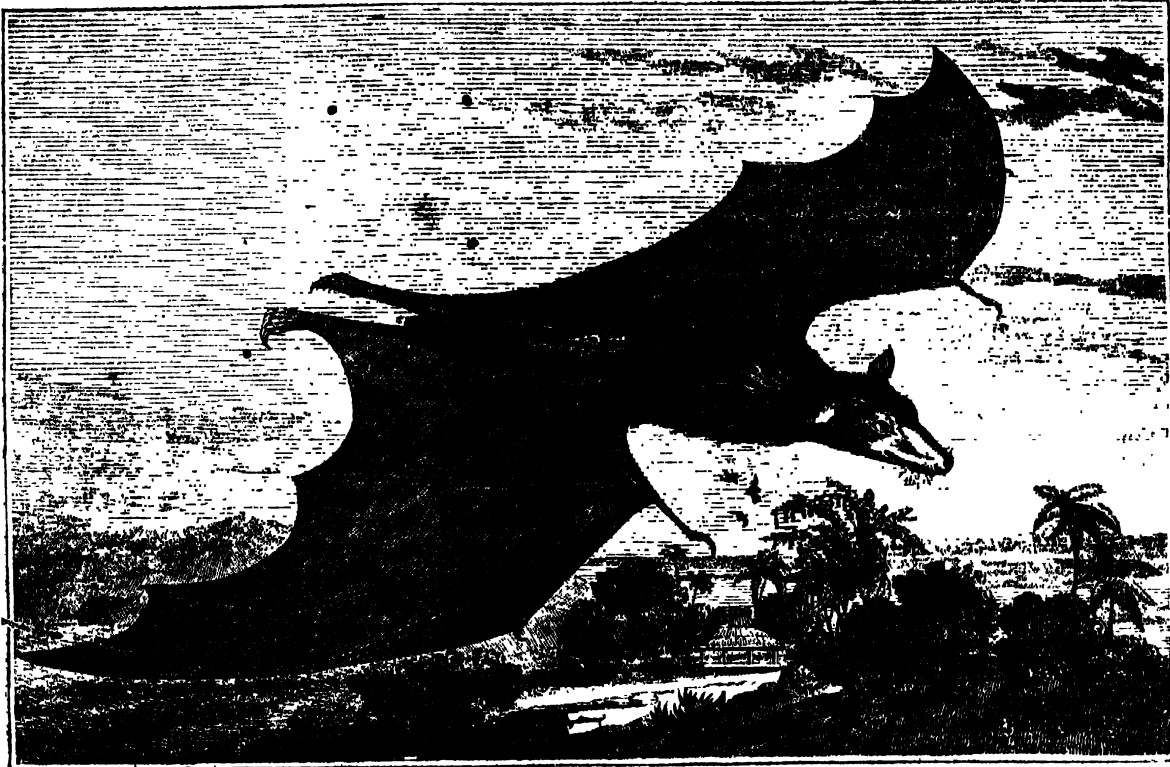
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151.]

PUBLISHED EVERY SATURDAY.

[August 9, 1834.]

THE KALONG BAT.—(*Pteropus Javanicus*.)



[The Kalong Bat.]

ALTHOUGH it is our proper object in the present article to furnish, from Horsfield's 'Zoology of Java,' an account of the particular species represented in our woodcut, we cannot omit to avail ourselves of the opportunity of describing generally the structure and habitudes of the rather extensive family to which it belongs.

According to the classification of Cuvier, bats constitute a family called *Vespertiliones*, of the sub-division *Cheiroptera*, in the order of *Carnassiers*. The characteristics of the entire sub-division may be thus enumerated:—The fingers connected by a membrane, which spreads from the anterior to the posterior extremities, fitting the animals for flight. Incisary teeth variable in number; canine teeth more or less strong; grinders, in general having acute-pointed crowns, with a longitudinal furrow; collar bones very strong; large shoulder blades; fore arms not capable of a rotatory motion; and the breast furnished with two paps. This character of the sub-division will render intelligible the more detailed description of the bat family, which may be thus characterized:—The toes or fingers of the fore-limbs are much larger than those of the hinder, united by broad and very fine membranes, usually without claws; the thumb alone is separated, but is not opposable to the other fingers, and is very short in proportion to them; it is longest in the genus *Pteropus*, and is always furnished with a strong and very sharp claw. The toes of the hinder feet are united, very short, and provided with very strong nails. The cutting teeth are sometimes wanting in one of the jaws, or vary, with the genus, from two to six; the canine teeth are for the most part very strong; and the grinders have generally sharp protuberances. These

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keen and pointed teeth enable them to bite with much force, and those of a considerable age and size can inflict a very severe wound. The wing-like membrane is naked. Some species possess only the rudiments of a tail, whilst in others the tail is of considerable length. The ears are almost always large in proportion to the size of the animal.

The bat tribe comprehends a great number of genera, species, and varieties, among which are found some very singular modifications of structure, in the form of the wing membranes, the figure and expansion of the ears, and the remarkable membranous appendages to the noses of several species. The species vary greatly in size, from that of the smallest common mouse to that of the enormous bat of Java, which we shall presently describe. The smaller species are abundantly distributed over the face of the globe; but the larger appear to be confined to hot regions, where they exist in great numbers. Some species seem to live exclusively on insects, whilst others eat fruit as well as insects; and it is known that bats have seldom much objection to partake of any raw or dressed meat, whether fresh or tainted, which happens to be within their reach. The purely insectivorous species render great service to mankind, by the destruction of vast numbers of insects, which they pursue with great eagerness from the evening to the morning twilight*; but in those countries where they are abundant, the frugivorous species commit fearful havoc among the fruits on the trees. Bats are said to drink on the wing

* Some accounts seem to say that bats are only abroad in the morning and evening twilight. But we have seen them flitting about in full activity at all hours of the night.

by sipping the surface like swallows as they play over pools and streams. They are fond of frequenting waters, not only for the sake of drinking, but on account of the insects which abound in such places. All the different species of bats are nocturnal animals; they conceal themselves during the day, time in old buildings, in barns, in hollow trees, in caverns, vaults, and similar retreats, where they cling together in large clusters, so that they seem to form but one mass. Homer alludes to this habit when speaking of the ghosts in the lower world:—

"As in the cavern of some rifted den,
Where flock nocturnal bats and birds obscene,
Cluster'd they hang, till, at some sudden shock,
They move, and murmurs run through all the rock."

In the East, inhabited houses are not free from their intrusions. We have seen great numbers of them clinging to the arches of the cool cellars which are inhabited during the summer at Bagdad; and not only so, but to the vaulted ceilings of light and lofty rooms on the first floor. We have thus had them continually in the same rooms with us. We never observed a single bat leave its position, or even change it, during the day; though from the shapeless and furry mass heads peered out with sufficient frequency to indicate that, in the summer days, it was not merely sleep that kept them motionless. Noise never seemed to disturb them; and if actually touched, they would fly off indeed, but would immediately return and form their cluster again on the same spot.

We have had several occasions of directing the attention of our readers to that beautiful and wise regulation of nature by which animals not migratory are obliged to sleep through that winter period in which the food they usually subsist on is difficult to obtain. The bats, in all but warm climates, afford another instance. On the approach of the cold evenings at the latter end of autumn, they fall into their long winter slumber, and are no longer to be seen abroad in the evenings, but are found clustered together to defend themselves against the cold. "Their long lethargy," says a writer in the 'Edinburgh Encyclopædia,' "cannot be very remote from actual dissolution; for some of the most important animal functions are at least so far suspended as to be scarcely perceptible. The action of the heart and arteries, for example, becomes so languid, that the pulse can scarcely be felt; and it is very doubtful if respiration be at all carried on. The circulation of the blood is not discernible in the smaller vessels; but when the animal is revived by warmth, it again becomes visible by the microscope. During hybernation the animal's temperature falls greatly below the ordinary standard, while digestion and the visible excretions are arrested. It is presumed, however, that the adipose matter is gradually taken up by the absorbents into the languid circulation; for the creatures enter into their dormant state very fat, and revive much emaciated. On the whole they fare better during a severe than a mild winter; for warm weather not only awakens them, but re-excites their digestive powers at a time when the requisite supply is not attainable. Some have been observed to come forth at the temperature of 42° of Fahrenheit's thermometer, and others only at that of 48°. Such of them as have been roused by irritation, or the sudden application of heat, have seldom survived the third day; but then it is stated that the weather became colder. In their dormant state, the lingering remains of vitality may be ascertained by the touch, or the approach of a lighted candle, from either of which it will be observed to shrink. A moderate and equable heat, such as that of the human hand or bosom, is most likely to revive them, as well as other torpid animals, which are often killed by being placed too near the fire."

The natural posture of repose to the animal during this period, as well as in the days of summer, is that of suspending itself by the hind claws with the head downward. In this posture the wings serve as a sort of cloak or mantle; and in this they also sometimes cover up their young, although they will at other times fly about with two young ones at the breast in the act of sucking. These young ones together frequently exceed the weight of the parent; and the tenacity with which they retain their hold is amazing.

The eyes of bats are deeply seated in their heads, and are very small in many of the species. It does not indeed appear that they are of any essential use in directing their course, for it is one of the most extraordinary facts in natural history, that privation of sight does not prevent them from moving in the air, and from avoiding obstacles, to all appearance as readily as when they possessed the power of seeing. It has been thought that the wings, by their delicate structure, serve as feelers to the animal in guiding its flight in the dark. Spallanzani, the distinguished naturalist, hung some cloths across a large room, with holes in them here and there large enough for a bat to fly through. He had previously prepared some for this experiment by the cruel process of depriving them of their sight, and, as much as possible, of their hearing. On being turned loose, they flew without the least difficulty through the holes in the cloth without touching the cloth itself.

It seems to be very difficult for bats to raise themselves into the air from a flat or level surface, and this may be one cause for the suspended posture in which they are usually found. They do, however, sometimes settle on the ground, probably to seek food that cannot be obtained on the wing. When they do so, they shut their wings, and are able to walk, or even to run at a good pace, though with considerable awkwardness.

We may now recur to the *Pteropus Javanicus*, which is represented in our wood-cut, and which is the largest species of the genus that has been hitherto discovered. In adult subjects, the breadth of the expanded wings is full five feet, and the length of the body one foot. In the Museum of the East India Company there are several specimens, in the largest of which the expansion of the wings is five feet two inches, and, in the smallest, three feet ten inches: all the other specimens measure, nearly five feet. The length of the arm and the fore-arm together, from the union with the body to the origin of the finger-joints, is fourteen inches. The naked thumb, projecting beyond the membrane, measures two inches; and the claw, which is strong and sharp, has an extent of nearly one inch along its curvature. On the fore-finger the claw is minute, and, by the particular inflection of the joints, it obtains a direction opposed to the plane of the membrane. The length of the hind legs is eight inches and a half.

The head, as in other species of *Pteropus*, is oblong, and the muzzle comparatively of moderate length; it is very gradually attenuated, and measures less than one-third of the entire length of the head. The nose is short, and somewhat compressed at the sides. The nostrils are round anteriorly, and pass backward by a curve, resembling part of a volute. The ears are simple, long, narrow, and pointed. The eyes are large and prominent, and the irides dark. The gape of the mouth terminates under the anterior corner of the eye. The nose projects but slightly beyond the jaw, and the lips are narrow, and form a neatly-defined inclosure of the mouth. The teeth are thirty-four in number;—namely, four front teeth, two canine teeth, and ten grinders in the upper jaw; and the same number of front and canine teeth, with twelve grinders, in the lower jaw. No vibrissæ exist, but a few lengthened bristly hairs are scattered about the lips, nose, and eyes. On the upper

part of the head, the crest of the skull shows itself as a longitudinal ridge, which is most prominent in adult individuals. The general form of the body presents nothing peculiar.

The colour of the flying membrane is dark-brown, inclining to black, with a slight yellowish-red tint. The general colour of the body and head is black, and of the neck and adjoining parts above smoky-brown; but both the extent and intensity of these colours are subject to variations. The upper and lateral parts of the neck, and the adjoining parts of the back, between the shoulders, afford a principal distinction in the varieties of this species. In many individuals, the brown or yellowish red hairs form a complete collar round the neck, though the colour is always more intense above. The breadth of this collar varies considerably; in some cases it extends from the middle of the head to beyond the shoulders,—in others it is confined to the neck, and the back part of the head. The tint likewise varies from yellowish-red to blackish-brown, but in all cases it has a smoky hue. In young subjects the hairs are long, soft to the touch, and glossy; in old subjects they become crisp and rough.

The *Pteropus Javanicus* is extremely abundant in the lower parts of Java, and uniformly lives in society. The more elevated districts are not visited by it. Numerous individuals select a large tree for their resort, and suspending themselves with the claws of their posterior extremities to the naked branches, often in companies of several hundreds, afford to a stranger a very singular spectacle. A species of *Ficus*, in habit resembling the *Ficus religiosa* of India, which is often found near the villages of the natives, affords them a very favourite retreat, and the extended branches of one of these are sometimes covered by them. In general, these societies preserve a perfect silence during the day; but if they are disturbed, or if a contention arises among them, they emit sharp piercing shrieks, and their awkward attempts to extricate themselves, when oppressed by the light of the sun, exhibit a ludicrous spectacle. In consequence of the sharpness of their claws, their attachment is so strong that they cannot readily leave their hold without the assistance of the expanded membrane; and if suddenly killed in this natural attitude during the day they continue suspended after death. It is necessary, therefore, to oblige them to take wing by alarming them, if it be desired to obtain them during the day. Soon after sunset they gradually quit their hold, and pursue their nocturnal flights in quest of food. They direct their course, by an unerring instinct, to the forests, villages, and plantations, occasioning incalculable mischief,—attacking and devouring indiscriminately every kind of fruit, from the abundant and useful cacao-nut, which surrounds every dwelling of the meanest peasantry, to the rare and most delicate productions which are cultivated with care by princes and chiefs of distinction.

There are few situations in the lower parts of Java in which this night-wanderer is not constantly observed;—as soon as the light of the sun has retired, one animal is seen to follow another at a short but irregular distance, and this succession continues uninterrupted till darkness obstructs the view. The flight of the Kalong is slow and steady, pursued in a straight line, and capable of long continuance. The chase of it forms occasionally an amusement to the colonists and inhabitants during the moonlight nights, which, in the latitude of Java, are uncommonly serene. He is watched in his descent to the fruit-trees, and a discharge of small shot readily brings him to the ground. By this means Mr. Horsfield frequently obtained four or five individuals in the course of an hour.

SUENO'S PILLAR AT FORRES.

THIS curious and interesting stone, of which the accompanying engraving gives a correct representation, is situated at a short distance from the town of Forres, in the county of Elgin. It is only a few yards off the road leading from Elgin to Inverness. It is admitted on all hands to be the most singular monument of the kind in Great Britain, perhaps in Europe. Many of our most distinguished antiquarians are indeed of opinion that it has no parallel in any country, Egypt excepted. It is cut out of a large block of granite stone of the hardest kind to be found in Scotland. In height it measures twenty-five feet, and in breadth, near its base, nearly four feet. It is divided into seven departments. It is sculptured on both sides; but that which looks in an eastern direction is by far the most interesting, not only because it is more crowded with figures than the other, but because those figures are executed in such a manner as shows that those by whose instructions it was erected regarded it as that which would chiefly perpetuate whatever occurrence it was intended to record. The highest department of the obelisk contains representations of nine horses, each having a rider, who is apparently rejoicing at the accomplishment of some important object,—most probably of some great victory which has been gained. The figures on this division of the stone are more defaced by time than those on the other divisions, but are still sufficiently distinct to prevent any mistake as to what they are. In the next department appear a number of men all in a warlike attitude. Some of them are brandishing their weapons, while others, as if exulting at some joyful event, are represented as holding their shields on high. Others, again, are in the act of joining hands, either as if mutually congratulating each other, or as a pledge of reciprocal encouragement and assistance. In the centre of the next line of figures appear two warriors, who seemingly are either making preparations for, or are already engaged in, single combat, while their respective friends are witnessing the conflict with the liveliest interest. Next we have a group of figures witnessing one of their number beheading, in cold blood, the prisoners who had been taken in war. Close by is a kind of canopy, which covers the heads of those who have been executed. This canopy is guarded by men, each bearing a halbert. A number of dead bodies are lying on one side. Next are trumpeters blowing their trumpets, in testimony, no doubt, of the triumph which has been obtained by the parties, to commemorate whose deeds the monument was raised. In the next division we have a troop of horses put to flight by a band of infantry, whose first line are armed with bows and arrows, while those which follow are accoutred with swords and targets. In the next and last department of the stone, the horses seem to be seized by the conquering party, the riders are beheaded, and the head of the chief or leader is suspended, which is probably meant to denote the same degradation as if it were hung in chains. The other side of the obelisk is chiefly occupied with a large cross. Beneath it are two persons evidently of great consequence. They are accompanied by a retinue of attendants, and embrace each other as if in the act of becoming reconciled together.

Such is a description of this very extraordinary monument. As to its origin, or the particular events it was intended to commemorate, we are unfortunately left in uncertainty. Every historian, every traveller, and indeed most of the antiquarians in Scotland, have all more or less turned their attention to the subject; but no two of them are agreed as to the purposes for which it was erected. Some suppose, from the circumstance of

the cross being on the obverse side, that it was planted to commemorate the first establishment of Christianity in Scotland. This, however, is very unlikely; for, had such been its object, it is difficult to see what connection so many warlike figures could have had with it. Others maintain that it was raised in memory of the battle of Mortlach, which battle, having been gained by the Scots over the Danes, eventually led to the expulsion of the latter from the kingdom. This is also a very improbable hypothesis, the battle in question having been fought nearly twenty miles from the spot where the stone is erected. In fact, there is scarcely any event of national importance that occurred between the commencement of the tenth and the end of the twelfth centuries,—for the date of the pillar is generally supposed to lie between those two periods,—but has been supposed by some antiquarian or other to have been the cause of its erection.

The hypothesis of the Rev. Charles Cordiner, a distinguished northern antiquarian of the last century, respecting the origin of this monument, appears to us the most probable. His opinion is that it was raised to commemorate the defeat and expulsion from Scotland, by the Scots, of those Scandinavian adventurers mentioned in the 'Annals of Torfans,' who, joined by a number of chieftains from the opposite coast of Caithness, had, in the ninth century, established themselves at the neighbouring promontory of Burghead*, and who, during the hundred and fifty years they kept possession of the place, committed the most serious depredations throughout the surrounding country. In support of his hypothesis Mr. Cordiner reasons in this way:—

"In their sanguine endeavours to extend their sway and at the same time secure a more speedy retreat to their lines, when carrying off booty, or baffled in any attempt, the aid of cavalry was of essential and almost indispensable importance, and naturally became the distinguishing characteristic of their forces.

"Of consequence, as it was the great object of Caledonian policy and valour to seize their horses, in order to defeat their enterprises; so when, at a fortunate period, they succeeded in totally routing the Scandinavian bands, and compelling them to leave their shores, if they wished to erect a conspicuous memorial of the event, the most striking article would be to exhibit the seizure of the horses, and the inflicting of a capital penalty on their riders; and this is done in the most conspicuous department of the column.

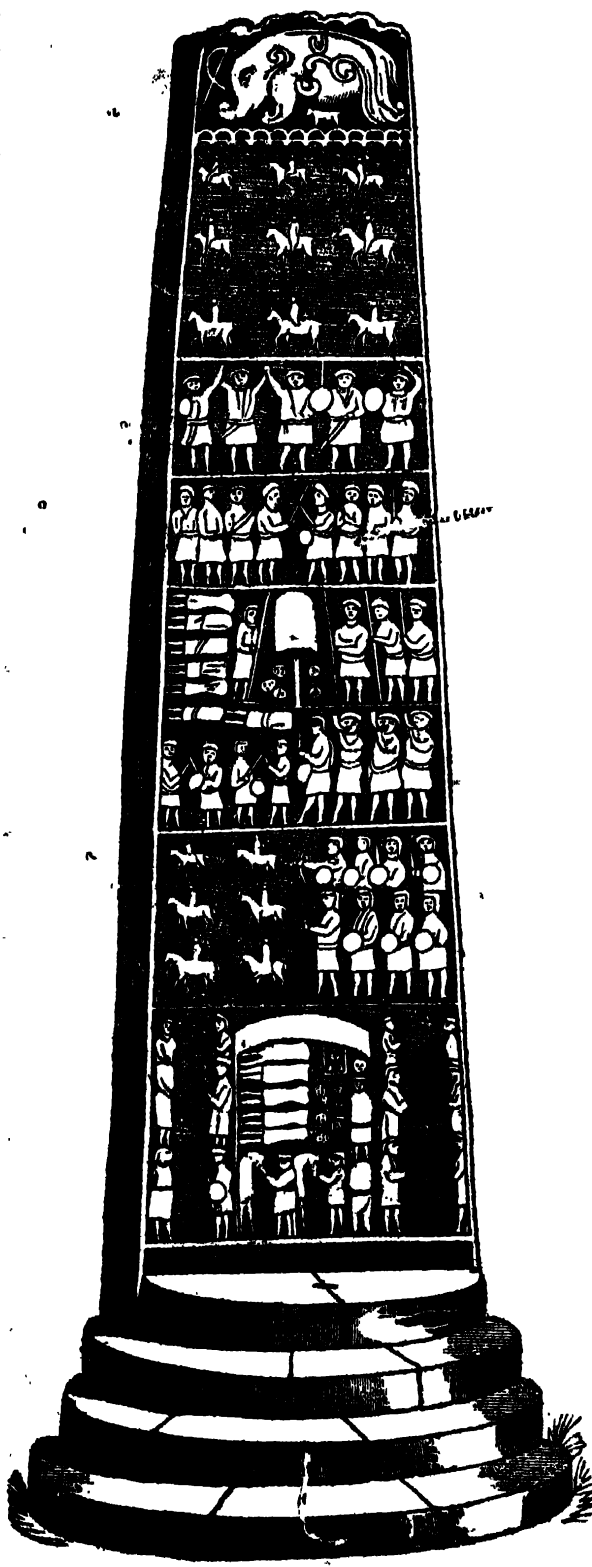
"It is moreover evident, from the concurring testimony of history and tradition, that part of the troops and warlike adventurers which had embarked in the grand expedition undertaken by Olaus, Prince of Norway, about the year 1000, did reinforce the garrison at Eccialshacca, in the Burgh of Moray, and made some daring advances towards the subduing of the surrounding countries—and that, soon after that period, their repeated defeats induced them wholly to relinquish their settlement in that province.

"No event was therefore more likely to become a subject of national gratitude and honour than those actions in which the princes of Norway and their military adherents were totally defeated, and which so fully paved the way for returning peace to smile over these harassed and extensive territories. And, in consequence of the Scandinavian forces finally evacuating their posts, a treaty of amicable alliance might be formed between Malcolm and Canute, or Sueno; King of Norway; and the august figures on the base of the cross have been sculptured to express

* Burghead is the most northern point in Scotland to which the expedition of Agricola penetrated. The Romans there encamped, and continued in the place for a considerable time. The traces of their camp are still distinctly to be seen.

that important reconciliation,—while the figures on the adjacent edge of the obelisk, which are joined hand in hand, and in attitudes of friendly communication, may allude to the new degrees of mutual confidence and security which took place after the feuds were settled that are represented on the front of the column."

The traditions of the country are certainly more in favour of this view of the matter than of any other hypothesis which has been advanced. The very name, indeed, given to the pillar, viz., "Sueno's Stone," which it has retained from time immemorial, shows that the opinion of the peasantry in the district always has been, that that Norwegian monarch must have been, in some way or other, connected with its erection.



[Pillar of Sueno.]

JOHN SACKHEUSE, THE ESQUIMAUX.

THERE seems to be hardly any information more generally interesting than that which states the conduct and deportment of the natives of savage or barbarous countries, who happen by peculiar circumstances to be set down amidst the wonders of European civilization. How their minds are affected by the difference between this and the modes of life to which they have been accustomed; how their faculties expand under the influence of new relations and circumstances; what are the classes of things which most engaged their attention; and with what eye they viewed our habits and institutions—are all objects of highly interesting and not unprofitable consideration. Under this impression we have drawn together from various sources the following account of John Sackheuse, a young Esquimaux, who died in this country in the year 1819. In the same year, a Memoir of this young man, attributed to the pen of Captain Basil Hall, appeared in 'Blackwood's Magazine.' He is also mentioned in other papers of that publication; and appears a very prominent character in the account published by Captain Ross of his 'First Expedition in search of a North-west Passage.' The following narrative is drawn from all these sources of information, particularly from the Memoir in 'Blackwood.'

John Sackheuse appears to have been born about the year 1797, on the west coast of Greenland, about 70° north latitude. In the year 1816, when the whale ships of the season were about to leave the coast and return home, John was enabled through the favour of the sailors, whose good will he had won, to hide himself and stow away his canoe on board the *Thomas and Anne*, Captain *Newton*, of the port of Leith. When the vessel was well clear of the land John came forth from his concealment, and the captain supposing he had been carried away by accident, kindly offered to return and put him on shore. But finding that he had a very earnest desire to proceed to England with the ship, and abandon his own country, Captain *Newton* permitted him to remain. During the voyage John contrived to pick up a little English, and made himself a tolerably expert seaman. During the following winter he frequently exhibited his canoe in the docks at Leith, in which neighbourhood he and his frail vessel attracted a good deal of notice. By the owners and the captain of the *Thomas and Anne*, he was treated with the greatest kindness and liberality; and when, in 1817, he went to Davis's Straits again in the same vessel, the captain was carefully instructed to leave it quite free to him either to remain in his own country or return again with the vessel. On reaching Greenland he found that his only surviving relation, his sister, had died in his absence. When he received this intelligence he immediately decided to return to Scotland, and declared that he would revisit his native country no more.

About the beginning of the year 1818, Mr. Nasmyth, an eminent artist of Edinburgh, happened to meet John Sackheuse in the streets of Leith, and having been some years before engaged to execute a set of drawings of the Esquimaux costume, he was naturally attracted by his appearance, although his dress was considerably modified by his European habits. Mr. Nasmyth took him to Edinburgh, and finding that he had not only a taste for drawing, but considerable readiness of execution, he kindly undertook to give him instructions in the art. Shortly after, when it was understood that an expedition to the Arctic regions was about to sail under Captain Ross, it occurred to Mr. Nasmyth that the services of Sackheuse might be very advantageously employed on the occasion; and this idea having been communicated to the Admiralty, he was immediately invited on very liberal terms to

accompany the expedition. John seemed very indifferent about the compensation, but readily agreed to go, —only carefully stipulating that he was not to be left in his own country. His great unwillingness to return to his native land, after having tasted the blessings and comforts of civilized life, seems more easy to account for than his original willingness to leave it. On this point the materials before us afford no foundation even for a conjecture.

We must now turn to the work of Captain Ross for an account of the proceedings of Sackheuse during the Arctic voyage. That officer appears to have been very sensible of the value of the young man's services, and his name occurs very frequently in the book. Among the various transactions of this voyage, in which he acted a considerable part, the following may be mentioned as the most prominent, and that which excited the greatest interest in his own mind.

On the 9th of August, when the vessels were near Cape Dudley Digges, about 76° N. lat., some human beings unexpectedly appeared, moving towards them on the ice, which spread for about seven or eight miles between the vessels and the coast of Greenland. As they seemed to hail the ship, they were at first supposed to be shipwrecked sailors; and the ships therefore stood nearer to the ice, and hoisted their colours. On a nearer approach, however, it was discovered that they were natives of the country, drawn by dogs on sledges, which moved with wonderful rapidity. They paused at what they considered a safe distance from the ships, which they remained for some time silently observing; but when the vessels tacked, they set up a simultaneous shout, accompanied with many strange gesticulations, and wheeled off with amazing velocity towards the land, and they were soon lost sight of behind the hummocks of ice. Their sudden departure was much regretted, and in order, if possible, to bring them back—to make inquiries of them, and explain the friendly intentions of the visitors—Captain Ross caused a white flag to be hoisted on a hillock of ice. On this was painted a hand holding a green branch of a tree: there were also left on the ice some presents placed on a stool, and an Esquimaux dog, with some beads about his neck. When, about ten hours after, the vessels returned from examining the state of the ice at the head of the pool, the dog was found asleep on the spot where he had been left, and the presents were untouched. But on the following day eight sledges were observed moving furiously towards the vessels. They halted about the distance of half a mile from the ships, and when it was perceived that they had no inclination to come nearer, Sackheuse volunteered his services to go on the ice with presents and endeavour to bring the people to a parley. In estimating the courage which this offer indicated, it should be borne in mind that John, in common with other southern Esquimaux, believed these northern regions to be inhabited by an exceedingly ferocious race of giants, who were great cannibals. Nevertheless, at his own particular desire, he went to meet the strangers, unarmed and unattended; and he executed the service with a degree of address not inferior to the courage with which it was undertaken.

After much difficulty Sackheuse succeeded in establishing an intercourse with these people. The impression made by this scene upon him was so strong that he afterwards executed a drawing of it from memory. This was his first attempt at historical composition, his practice having been hitherto confined to copying such prints of single figures or ships as he could procure. He gave this drawing to Captain Ross, and an engraving from it appears in the work of that officer. He says that it was executed by the Esquimaux without assistance or advice; and adds, "It cannot certainly be regarded as a specimen of art, but

it has the merit of being at least a good representation of the objects introduced." After his return to England, John used to take great delight in relating his adventures with the "Northmen," as he called these people. On one such occasion he, with great good humour, and somewhat touchingly, adverted to his own ignorance when first he landed in this country. He then imagined the first cow he saw to be a wild and dangerous animal, and hastily retreated to the boat for the harpoon, that he might defend himself and his companions from this ferocious-looking beast.

On the return of the expedition, John became an object of great interest in London, and obtained so much notice, that there was reason to fear either that the poor fellow's head would be turned, or that he would get into bad company and acquire dissipated habits. But, happily, he soon tired of London, and, at his own desire, was sent to Edinburgh, and placed under the charge of some of his old friends.

The Admiralty Board, feeling the importance of John's services as an interpreter to the next expedition, gave directions that he should be educated in as liberal a manner as possible. He concurred with these views, and engaged in the requisite pursuits with astonishing ardour and perseverance. Mr. Nasmyth resumed his drawing lessons in a more methodical manner than at first; and was of still greater service to him by teaching him English, and by introducing him to his own family, all of whom took the warmest interest in his improvement and welfare. He was also instructed in writing; and a gentleman who wished to learn the Esquimaux language undertook to give him regular lessons in English. He amused his leisure in modelling and carving canoes, and took much pleasure in walking about and paying visits. He was fond of society, and being himself very entertaining, the circle of his acquaintance was soon so extended, that his evenings passed cheerfully and profitably.

But in the midst of all his enjoyments and useful pursuits, he was seized with an inflammatory complaint, from which, in a few days, he in a great measure recovered, but relapsed, and died on Sunday evening, the 14th of February, 1819. The highest medical talent of the city had been exerted in vain to save him; and during his illness he was attended by his friends with the most anxious care. During the height of his first illness he was very obedient; but when he was freed from pain, and began to gain strength, he by no means liked the discipline to which he was subjected, and the prescribed regimen still more displeased him.

The remains of this interesting stranger were followed to the grave by a numerous company, among whom were not only his old friends and patrons from Leith, but many gentlemen of high respectability in Edinburgh.

"John Sackhouse (says the Memoir in 'Blackwood's Magazine') was about five feet eight inches high, broad in the chest, and well set, with a very wide face, and a great quantity of coarse black straight hair. The expression of his countenance, however, was remarkably pleasing and good humoured, and not in the least degree savage. There were at all times great simplicity and absence of pretension in his manners. His modesty was great: when asked his opinion of the elephant he had seen in London, he said, with great *naïveté* and a look of great humility, 'Elephant more sense me.' His disposition was gentle and obliging; he was grateful for the least kindness shown to him, and upon several occasions exhibited a goodness of heart, and a consideration for the wishes and feelings of others, which would have done honour to any country. His fondness for and kindness to children was very striking. In a snowy day, last winter, he met two children at some distance from Leith, and observing

them to be suffering from the cold, he took off his jacket, and having carefully wrapped them in it, brought them safely home: he would take no reward, and seemed to be quite unconscious that he had done any thing remarkable. He was temperate in all his habits; he was docile, and always open to conviction; showing, however, the greatest desire to be treated with confidence, and of this he never proved himself unworthy.

"He had a quick sense of insult: and one evening being attacked in a most ungenerous and cowardly way in the streets, he resented the indignities put upon him in a very summary manner, by fairly knocking several of the party down; but although the insult was thus resented, so nice were his feelings that several days elapsed before he subsided into his wonted quiet state of mind. It is due to poor John to state, that upon this occasion he behaved for a long time with great forbearance; but upon being struck, he was roused to exert his strength, which was prodigious. The whole party were carried to the watch-house—a measure which the Esquimaux could never be made to comprehend."

NAUPLIA.

THE town of Nauplia, or Napoli di Romania, is situated along the foot of an abrupt rocky promontory of considerable elevation, which projects into the sea at the head of the gulf bearing the same name. It occupies the whole length of the narrow strip of low land between the cliffs and the shore, so that further enlargement is impracticable. It is well fortified, and enclosed by walls on which the "winged lion" is still visible, in proof of their Venetian construction, and although miserably bad, is, upon the whole, one of the best built towns in the Morea, of which it is justly considered to be the maritime key.

It is admirably situated, both in a military and commercial point of view; but the place is very unhealthy, partly owing to the neighbouring marshes in the plains of Argos, and partly owing to the total want of cleanliness. Fevers are very prevalent, and the town has often been ravaged by plague. In 1824 it was visited with a dreadful epidemic, which carried off about one-third of the population. The interior, with the exception of one square, consists of very narrow, filthy streets, from which the breeze is always excluded by the upper stories of the houses projecting one above the other till they almost meet. The larger houses generally have been built by the Venetians, and are now made subservient to public purposes; but the greater part are Turkish, though very different from the light, well-built houses of Constantinople. In these the lower part is invariably appropriated as a stable for the horses, whence a miserable and often unsafe staircase leads to the upper inhabited apartments. The shops are principally for the sale of wine, provisions, and arms. Much as the town has suffered from the effects of cannon during its several sieges, its present ruinous state is principally owing to the spirit of implacable revenge, which led to the demolition of those houses which had been the residence of Turks. The many barbarous excesses committed on both sides from this deep-rooted feeling are of a nature too revolting to dwell upon, and, however it may be attempted to extenuate them, have greatly dimmed the lustre of the victory which has at length crowned the Greek arms. A mosque with its taper minaret and some fountains, which they are in the habit of erecting in their streets, are the only monuments left in this town to show that for so many years Greece was the slave of Turkey.

At present Napoli is the seat of government and residence of King Otho, and may therefore be considered the capital of Greece; but although it must

ever be a place of great importance as a military and commercial post, it is by no means calculated to become the metropolis of the kingdom, from its unhealthiness and very circumscribed extent. The population may amount to 5000 or 6000, but fluctuates greatly: it is however, one of the most thickly-peopled cities in the world, averaging three or four inmates to each room. Since the arrival of King Otho, Nauplia has undergone considerable improvement; and, as security of property becomes more certain, will doubtless make rapid advances, a great number of emigrants from Europe having already established themselves in trade here. The diversions of the town consist in frequenting some ill-furnished coffee-houses and billiard-tables, or an evening promenade in the square or to the suburb. The market of Napoli is well supplied with fruit and vegetables in great variety and abundance; but butchers' meat is indifferent. The adjacent country is rich and fertile; even the wildest and most uncultivated parts are covered with beds of thyme, fennel, and mint, which afford inexhaustible materials for honey; but this indulgence must be gratified with caution, as the honey is medicinal in its properties.

The port is exceedingly good and eligible for shipping, being perfectly safe and easy of access. From the bay, the view is at once pleasing, picturesque, and exciting: the lofty, majestic rock surmounted by the citadel; the busy town and port; the plain and town of Argos, with its Acropolis, backed by a range of lofty mountains, and the snowy summits of Taygetus to the west; all heightened by the associations of former times—contribute to render the surrounding scenery highly interesting. But as soon as the stranger puts his foot on shore, the enchantment ceases and his enthusiasm vanishes,—all feelings of pleasure give way to nausea and disgust.

Prior to the revolution, Napoli was the *dépôt* for all the produce of Greece; and, although this exclusive trade has latterly been shared by other ports, there is still an extensive commerce carried on in wine, oil, corn, wax, honey, sponges, and cotton. The transport of these articles is principally limited to karks, or open boats of fifteen or thirty tons burden. Napoli offers no facility for ship-building; but, as some of the islands engage largely in this occupation, it may be expected that, as the mercantile navy increases, commerce will also emerge from the narrow bounds to which it has hitherto been confined. Already, indeed, it has begun to experience the encouraging effects of freedom, order, and peace. The sea-breeze blows furiously up the Gulf of Nauplia during the day, and it is the custom, therefore, for vessels to leave the anchorage in the evening, when they catch the land-breeze, which blows during the night, and generally carries them out of the gulf before morning.

The strength of Napoli is the citadel, which is called the Palamed, over whose turreted walls a few cypresses raise their sombre heads; it stands on the easternmost and highest elevation of the promontory, and completely overhangs and commands the town. To all appearance it is impregnable, and from its situation and aspect has been termed the "Gibraltar of Greece," an appellation which, when in a better state of defence, it may deserve. It is 720 feet above the sea, and has only one assailable point, where a narrow isthmus connects it with the main land—and this is overlooked by a rocky precipice: the ascent is by flights of steps cut in the rock. Beneath the Palamed, the land continues at the elevation of about 300 feet to the extreme point of the promontory, and on this are various forts, &c. The present fortifications are chiefly Venetian, repaired at various times by the Turks and Greeks; but the ruins of ancient walls of Cyclopean masonry, on which those

of the Palamed are based, may still be seen. Many pieces of Venetian ordnance remain on the walls to this day. The Palamed, in which some excellent barracks have lately been built, is capable of containing a large garrison. Besides these points, and the walls which enclose the town and are defended by bastions, there is a small rocky islet in the harbour on which stands the Castle of St. Theodore, which, though commanded by the upper forts, would be very formidable to an assailing squadron of ships. The Greeks, in the siege of Napoli, obtained possession of this post very early, and, in spite of its disadvantageous position, contrived to annoy not only the town but the Turkish garrison in the upper forts;—it is at present used as a state prison. The town of Napoli is supplied with water by a stream issuing from the celebrated fountain of Canathus. It passes by an aqueduct under the cliffs of the Palamed, and admits of being easily cut off by the besiegers, as it was by the Greeks.

The ancient Nauplia is said to have been built by Nauplius, the son of Neptune, before the Trojan war. Nauplia was subsequently the chief naval arsenal of the Argives. It was desolate in the time of Pausanias, who saw only the ruins of the walls and of a temple of Neptune remaining. The Venetians obtained possession of it in 1460. In 1495 it surrendered to Bajazet, but was again taken by the Venetians, under Morozini, in August 1586, after a month's siege, and became the head-quarters of that nation in the Morea. In 1714 it was treacherously given up to Ali Pasha, and was the seat of Turkish government and residence of the Pasha of the Morea till Tripolizza was selected as being more central, when it became subject to the Bey of Argos. The crescent remained uninterruptedly flying on this fortress till the 12th of December, 1822, when it surrendered to the Greeks, after a long and tedious blockade, the Turkish garrison having been reduced to such a state of starvation as to feed on the corpses of their companions. In 1825 Ibrahim Pasha made a fruitless attempt to surprise the place; and it has been the stronghold of the Greeks in their struggle for liberty. In April, 1826, the Commission of Government held their sittings here, but were obliged to retire to Ægina on account of civil dissensions and two of the revolted chiefs being in possession of the Palamed. During the presidency of Capo d'Istria, who always resided (and was assassinated) in the town, it again became the seat of government; and on the 31st of January, 1833, the Prince of Bavaria arrived here as first king of restored Greece.

Though generally known to the Franks by the name of Napoli di Romania, it is generally known to the Greeks by its ancient name of Nauplia. It is the see of a bishop, and one of the towns for holding civil and criminal courts; it has a printing-press in full operation, and, besides the newspapers and periodicals, editions of several of their best works have been published at Napoli; and public instruction, which was early introduced here by the Jesuits, is again making progress. The accommodations for visitors have undergone considerable improvement, for which, indeed, there was ample room, as it was difficult for the traveller to find even necessities, much less comforts,—houses, rooms, there certainly were, but without any furniture.

Argos lies to the N.N.W., distant about twelve miles, by a road which leads for some time along the sea-shore, round the head of the bay; it is in some places so swampy as to be almost impassable in the winter months, but tolerably good as it proceeds along the plain towards Argos. An excellent road was made from Nauplia to Epidaurus during the presidency of Capo d'Istria, by which speedy communication was insured with Ægina and Athens.



[Napoli di R. M. 1894.]

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THE BAY-TREE.



THE bay-tree (*Laurus nobilis*), or, as the French call it, Apollo's Laurel, which our wood-cut appropriately represents amidst the ruins of that country with the ancient literature and fables of which it is so closely connected, is a species of the rather extensive tribe of plants which botanists distinguish by the name of *Laurus* (the ancient Latin name of the bay-tree), and which, besides the present, includes several interesting species, such as the cinnamon, camphor, benzoin, &c., which we are not at present required to notice particularly. The geography of the laurel tribe is thus given by Dr. Lindley:—"These trees inhabit the tropics of either hemisphere; in a very few instances only straggling to the northward in North America and Europe. No genus is known to exist in any part of the continent of Africa, except the paradoxical *Cassythia*. This is the more remarkable as several species of *Laurus* have been found both in Teneriffe and Madeira, and some other genera exist in Madagascar and in the isles of France and Bourbon." Of all the species, our bay-tree seems the best qualified to struggle with a colder climate than the tribe can in general bear, and is, in fact, the only one that is indigenous in Europe. It is very common in the East, in the isles of Greece, and upon the coast of Barbary. Entire forests of bay-trees exist in the Canaries. It has been perfectly naturalized in Italy and in the south of France; and it even bears our own climate very well, forming one of the most desirable evergreens we have, although its growth is slow.

In its southern habitat the height of the bay-tree sometimes exceeds thirty feet. The leaves are of a rich deep green, highly and pleasantly aromatic; the flowers are of a pale-yellow colour, and are afforded by old trees only; the fruit is of a nearly black-red colour, and about the size of a small cherry—never, we believe, perfected in this country, but plentiful in Italy. This is one of the trees which have been most celebrated by the ancient poets. Ovid relates, with great beauty, the fable of the change of Daphne into a laurel by Jupiter, to save her from the pursuit of Apollo, who thenceforth adopted the tree as his own:—

—"Because thou canst not be
My mistress, I espouse thee for my tree:
Be thou the prize of honour and renown;
The deathless poet and the poem crown,
Thou shalt the Roman festivals adorn,
And, after poets, be by victors worn."—

Garth's Ovid.

In consequence of this dedication to the god of poetry and music, the leaves of the plant were considered a suitable crown for the heads of poets, and came also to be bestowed on triumphant warriors, and on the victors in the Olympic games. Poets, warriors, and kings continue still to receive the laurel crown in poetry, on statues, and on coins; and the court-poet still retains the title of laureate as a memento of the laurel crown he formerly wore. In the middle ages, it was customary to place on the heads of young doctors a crown of laurel; such persons, as well as the poets who were sometimes solemnly crowned, as in the case of Petrarch at Rome in 1341, seem to have been called *baccalauræi*, from which word some etymologists derive the word 'bachelor,' when used as a literary title of honour.

The bay-tree is useful in medicine. The leaves when bruised between the fingers exhale a pleasant odour, and afford when burnt a grateful incense. This aromatic property occasions the employment of the leaves for culinary purposes, and hence they are an article of export from the countries which afford the tree, being a branch of commerce even with the United States. The husks of the berries contain a great quantity of volatile oil, which is very aromatic; and the kernels also furnish by expression a fat oil, which is

much employed for embrocations. It is greenish in colour, and the smell is a faint exhibition of that of bay-leaves.

CULTIVATION OF GOOSEBERRIES IN THE NORTH OF ENGLAND

THE gooseberry is commonly thought to be one of the native fruits of the island; and, whether so or not, there is certainly no country in which it arrives at greater perfection. It is always found to prefer the temperate climates, with an inclination rather towards the cold than the warm. It is not known in Africa, in the South Sea Islands, or between the tropics of either hemisphere; but is found in the temperate parts of Europe, America, and Asia. In the southern and central parts of Asia the plant is perfectly unknown, except in some situations where, among the high mountains, the temperature is lowered to the point it requires. Persons who have resided many years in India, and in all that time had never seen a currant or gooseberry, speak with delight of the European character which these plants give to the scenery of the mountains in the north of that country.

It is not clearly known when the gooseberry first became an object of cultivation in this country; but it had become a garden fruit in the reign of Henry VIII., for the old writer Tusser, who lived in that reign, says, in his 'Five Hundred Pointes of Good Husbandrie,'—

"The barbery, respis*, and gooseberry too,
Look now to be planted as other things do."

Soon after this period descriptions were afforded of ten or a dozen varieties; and, among the rest, the *blue*,—a colour not at present found among three or four hundred sorts that might be enumerated. The fruit was apparently very small when the plant was first brought under cultivation, resembling the small tasteless and neglected fruit which we find in the south of Europe; and, in size at least, it does not appear to have much increased down to more than a century after Tusser's time, as may be inferred from the surprise expressed by Pepys at seeing gooseberries "as big as nutmegs." "At every subsequent period," says an interesting and useful little tract†, from which much of the information in this article is taken, "the gooseberry has claimed a share of the attention of writers on horticulture, as it has found a place alike in the gardens of the nobleman and of the cottager; and has rewarded, by its abundant and profitable produce, the skill of the professional gardener, and, by its great size, the care of the amateur grower: indeed the success which has attended its culture under the holiday attention of the artizan seems to entitle it to the distinctive appellation of the *poor man's favourite*."

It has been ascertained that, under favourable circumstances, the gooseberry-plant will attain a considerable age, and grow to a great size. At Duffield, near Derby, there was, in 1821, a bush known to have been planted at least forty-six years, and the branches of which extended twelve yards in circumference; and the garden of the late Sir Joseph Banks, at Overton Hall, near Chesterfield, contained at the same time two remarkable gooseberry-plants, trained against a wall, measuring each upwards of fifty feet in the full extent of their branches.

The plant, in this country, exhibits a marked preference to cold situations. The gooseberry in the southern parts of England is not comparable to that of the north; and the flavour of the Scotch berry is much superior to that of those produced in any part of England; while, in Scotland itself, the gooseberries of Dundee, Aber-

* Raspberry.

† Memoir on the History and Cultivation of the Gooseberry.—Printed at Sheffield.

deen, and Inverness, much exceed in flavour any which the Edinburgh market-gardeners can raise. In size and appearance, however, the gooseberries of Lancashire are, perhaps, unequalled by any in the world; and there, and in the counties of Cheshire, Staffordshire, and Warwickshire, the striking improvement which has taken place in the cultivation of this cheap and agreeable fruit is to be attributed less to the market-gardeners, or even to the scientific horticulturists, than to the mechanics, who very generally spend much of their leisure time in the pleasing occupation of gardening, particularly in the cultivation of the gooseberry, and have their ambition very much turned towards the production of large specimens of that fruit. Some idea of the attention which has been paid to this object may be formed from the fact, that of the two hundred kinds of gooseberries which are enumerated in the fruit catalogue of the Horticultural Society, not fewer than a hundred and fifty are the large Lancashire gooseberries. "The custom has doubtless a tendency to improve the health and morals of the people. Any pursuit which makes men acquainted with the peculiarities of vegetable economy, in however small a degree, has a beneficial effect upon the heart and understanding; and it is certainly better for nailers and weavers to vie with each other in raising the largest gooseberries, than in those games of chance or cruel sports to which the leisure hours of the working classes are too often devoted. The one is a rational and innocent emulation; the other a degrading excitement or a brutal indulgence*." The humble origin of the different sorts of Lancashire gooseberries is often indicated by their names, which are generally fanciful, often local and personal, sometimes sufficiently absurd, but frequently characteristic of the manners of the country in which they are produced. "Lancashire Witches," "Richmond Lads," "Cheshire Lassies," "Jolly Miner," "Jolly Painter," "Top Sawyer," "Crown Bob," are sufficient specimens.

It is not to be expected that so much attention would be given to the culture of the gooseberry in the counties we have mentioned without the operation of some external stimulus. Accordingly, we find "Gooseberry Shows," as they are called, established in different parts of Yorkshire, Lancashire, and Cheshire. The time and conditions of these meetings are determined by certain rules, which are points of familiar knowledge; and the minor details of each show are settled in the spring, from which time, until the day of exhibition, each competitor entered on the list subscribes a small weekly sum towards the purchasing of prizes. These generally consist either of a pair of sugar-tongs, a copper tea-kettle, a cream-jug, or a corner cupboard, which, as well as sweepstakes, and specified sums of money, are adjudged to the growers of the heaviest fruits of each colour, seedlings, &c. The exhibition of the berries, and the adjudication of prizes, generally takes place in July and August, and the weight of the different sorts of fruit shown is frequently published in the newspapers of the town where the show is held; while the result of the shows in various parts of the kingdom have, for several years, been printed at Manchester, and circulated, chiefly among the growers, in what is called 'The Gooseberry Book.'

Thus far we have only had to make statements of a pleasing character. We regret now to add, on the authority of the 'Memoir,' that much time and money is wasted, and habits of drinking are formed or cherished, in attending the shows, which are usually held in public-houses, where, of course, as the only return to the landlord is profit upon the liquor drunk, the whole scheme is often got up with a sole reference

to that object. Under such circumstances, we imagine a wife must dread the consequence of her husband's addiction to even so innocent and pleasing a pursuit as that which we have been describing. This is a most unnatural state of things; and it is much to be lamented that men, upon whose conduct so many of the best interests of the country depend, do not recollect that "Gooseberry shows" might be carried on more rationally, more comfortably, and more advantageously, in every respect in private houses.

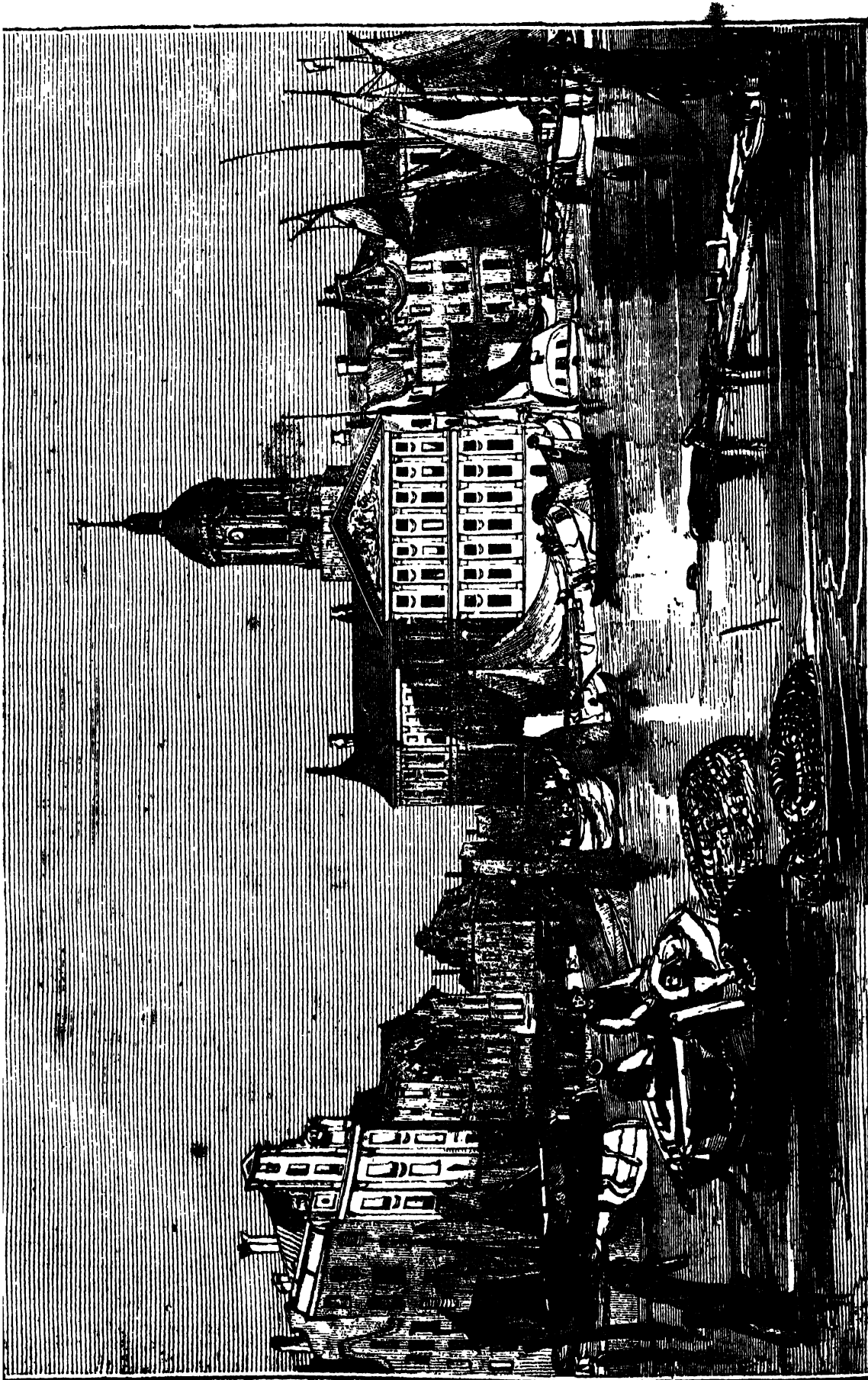
It is not our object to enter into details concerning the modes in which the gooseberry-plant is cultivated, but we may state a few particulars to illustrate the progress which has been made in the culture of the gooseberry-fruit. About forty years since it was thought a great thing when an amateur grower pulled a gooseberry that was heavier than a "spade-ace guinea," or, in the parlance of the workshop, "weighed more than a pound." Berries were, however, soon after produced that weighed twice as much; and little would now be thought of a show fruit that should not weigh five "pounds," or sovereigns. The largest gooseberry ever grown was a handsome yellow fruit called "Teazer," which was shown at Stockport in July, 1830, and weighed 32 dwts. 13 grs. The heaviest red berry on record was the "Roaring Lion," exhibited at Nantwich in 1825, and weighing 34 dwts. 16 grs. The heaviest white was the "Ostrich,"—24 dwts. 20 grs.—shown at Ormskirk in 1832, in which year the maximum of reds was only 27 dwts. 13 grs. In the same season, a seedling green was exhibited at Nantwich of the uncommon weight of 30 dwts. 18 grs. To this statement of the weight to which the fruit has sometimes been brought, it may be interesting to add that a seedling plant of reputation has been known to produce, when sold in lots, upwards of 32l. This was a rare case, indeed; but it is said to be not at all unusual for twenty guineas to be brought in by the distribution of a single bush in rooted parcels.

Thievish Disposition of the Gumbier Islanders.—Many of the natives had come off in the morning, and appeared quite at home with us. They danced and sung, nor did they conceal those pilfering propensities for which all these islanders are famed. It was ridiculous to see them carrying several articles to the gangway to put on their rafts; nor were they at all willing to part with their new acquisitions, upon intimation that they could not be so readily spared. A little terrier was brought on deck, and barked of course at the visitors: but they were so far from being afraid of his biting them, that one of their number took him up in his arms, and was about to carry him over the side. Unfortunately Rio made no use of his teeth, or no further argument would have been required to induce the savage to let him go. They were not allowed to go below, and as we thought, a vigilant look-out was kept upon them; notwithstanding which they contrived to make away with several things, such as a spy-glass, a book, and some other articles; one was detected with the tureen, which he had conveyed through the port-hole. It is the more astonishing that they succeeded in any attempt, from the impossibility of concealing their prey, as they were quite destitute of clothing.—*Manuscript Journal of a Voyage of Discovery.*

Effect of Moonbeams at Sea.—A Correspondent, in mentioning the non-existence at sea of certain rocks which are laid down in the Admiralty 'Charts,' remarks:—"I have frequently observed that the moonbeams striking from between the clouds upon the surface of the sea at some distance, when the waves are broken by a fresh breeze, cause an appearance so much like that of breakers as to be taken for such by most persons on board. It is probable that many of the rocks in the ocean, which are marked down in the 'Charts,' have had this origin; but none of them ought to be expunged until their non-existence has been decidedly established. They have, meanwhile, the good effect of exciting vigilance at sea."

* Vegetable Substances, &c. ii., part 2. Library of Entertaining Knowledge.

AMSTERDAM.



[Stadthouse and part of the City of Amsterdam.]

AMSTERDAM is the largest, wealthiest, and most populous city of Holland, although it is not the seat of government, and only ranks as the capital of the province of North Holland. It is situated on the south bank of the IJ or Y, a gulf of the Zuider Zee, in 52° 23' N latitude, and 4° 54' E longitude. The name of the town was originally Amstelredamme, which signifies the dam or dyke of the Amstel, a river which in part runs through the city, distributed into several branches, all of which terminate in the Y, which is so called from its figure.

The origin of Amsterdam is not of remote antiquity. In the early part of the thirteenth century it is known to have consisted merely of a few huts inhabited by fishermen. Its name first occurs in a letter of Count Floris, in the year 1275, in which he exempts the town of Amstelredamme from the payment of certain tolls or taxes. Until 1482 it appears only to have been surrounded by a weak palisade; but then a wall of brick was built to protect it from the incursions of the inhabitants of Utrecht, who were continually at variance with the Hollanders, and looked with an evil eye on the rising city. The history of Amsterdam would, indeed, for many years, strikingly illustrate the truth, that next to strife at home, strife between near neighbours is the most frightful and disgusting. We willingly pass over the details of wrong and outrage with which this period is replete, and proceed to state that, after the states of Zeeland and Holland united, in 1578, with Brabant and Flanders, in the pacification of Ghent, the advantages which Amsterdam offered for commercial enterprise attracted crowds of strangers to the town, not only from the other provinces, but from all parts of Europe; in consequence of which it began to assume that commercial superiority which had previously belonged to Antwerp, and gradually attained that wealth and splendour which it so long afterwards maintained. The prosperity of this great city declined during the wars and troubles of the fifty years preceding 1814; it appears since to have revived, but it has not regained, and cannot, perhaps, be expected to regain, its former relative importance. These latter facts may be illustrated by the statement, that the population of Amsterdam was 230,000 in 1785; 180,000 in 1814; and 202,000 in 1830.

The impulse given to the prosperity of Amsterdam at the period we have mentioned rendered it necessary greatly to enlarge the city. Accordingly we find that, in the year 1675, it had increased by one-half more than its former size,—and was then brought to its present extent. The little alteration it has received during the lapse of the long subsequent period is very remarkable, and is indicated by the fact, that the stranger finds the plans which were made 100 or 150 years since quite as accurate guides as they ever were through the streets and to all the remarkable objects which the town offers. It at present covers a surface of about 18,790 geometrical feet, and is said to be larger than Haarlem, Leyden, Delft, Rotterdam, and Dordrecht together, although these are all considerable towns. It is nine miles and a half in circumference, and is surrounded by a ditch eighty feet wide, full of running water, and with a rampart faced with brick, having twenty bastions, on each of which a windmill has been placed. Towards the land the town has eight magnificent gates of stone, and one towards the shore. The fortifications are now much neglected, and have been partly converted into public walks.

The town of Amsterdam itself, in the simple circumstances of its existence, is one of the most striking monuments of human industry and power which the world affords. The adjacent country, along the banks of the Y, is four or five feet below the level of the river, from the irruption of which it is preserved by massy

and ponderous dykes; and only an immense dam of the same kind secures the town itself from inundation, with which it seems every moment threatened by the brimful canals and waters which surround it. Canals, indeed, intersect the town itself in every direction, dividing it into ninety islands, which are connected by means of two hundred and ninety bridges, some of stone and some of wood: the river Amstel itself divides the town into two parts, the eastern or old, and the western or new part; the communication between which is by a bridge, partly built of brick and partly of stone, with thirty-five arches. This bridge is about six hundred and ten feet long, sixty-four and a half wide, and furnished with iron balustrades. The largest ships may pass through the eleven central arches. The borders of these canals are usually planted with trees, which, with the stagnant and feculent state of much of the water, is reasonably thought to be prejudicial to the public health, and to afford a sufficient solution of the fact, that mortality in Amsterdam is, in proportion to the population, greater than in any other European city. The town itself is, indeed, built in the midst of a salt-marsh. In consequence of this, the foundation of all the houses and public buildings is formed by driving piles, of from fifty to sixty feet in length, through the swampy ground, until they rest firmly on a solid bank of sand below the morass. The upper ends of the piles are then sawed to a level, and thick planks are nailed to them, on which the masonry is constructed. This renders the foundation by far the most expensive part of an ordinary building. Structures of this description are not nearly so precarious as the inexperienced might imagine. Some buildings have declined very much from the perpendicular, but are considered quite as secure from falling as before; they are not thought equally secure from sinking, in case the sand should give way on which the piles rest. An event of this kind happened a few years ago, when a stack of warehouses, heavily laden with corn, sunk and totally disappeared. This mode of foundation gave occasion to the witticism of Erasmus, who said that in his country great multitudes of people lived upon the tops of trees.

The streets of Amsterdam are in general very narrow. Many that contain the houses of the most opulent merchants are not more than seventeen feet wide. There are, however, some very fine streets:—Kiezer's Gragt, or Emperor's Street; Heeren Gragt, or Lord's Street; and Prinsen's Gragt, or Princes Street, are upwards of 140 feet wide, and are lined with houses the splendour of which would do honour to any town in Europe. All the streets are paved with brick, and a few of them have raised foot-paths for passengers; but as wheel-carriages are neither numerous nor are allowed to be driven with speed, the ways are nearly as safe as the flag-stone pavements of London. Most of the private houses are built of brick, painted and ornamented with different colours. Their exterior is usually plain; the interior of the houses, however, is sufficiently splendid, decorated very much in the French style, and the sides of the rooms are generally painted with landscapes in oil-colours. Having said thus much of the city in general, we shall devote the remainder of our space to its public buildings and institutions.

The largest and most stately edifice, not only in Amsterdam but in the kingdom of Holland, is the Stadthouse, or town-hall, which appears so conspicuously in the centre of our wood-cut. It was begun in 1648, and was finally completed in 1655, at a cost of 300,000l.—an enormous sum for that time, but which ceases to surprise when it is considered, first, that it rests upon 13,695 massive trees, or piles; and, then, that the building—which is 282 feet in length, 255 feet in depth, and 116 feet high,—is constructed of a material which

is not to be found in the country. With the exception of the ground-floor, which is of brick, it is all built of freestone. Notwithstanding its prodigious size, the Stadthouse is not very magnificent in its external appearance. The front is indeed ornamented with several statues of excellent execution; but most of them are lost in the view, except some fine bronze figures of Justice, Wealth, and Plenty, together with a colossal statue of Atlas, upholding the world, which appears upon the building. The structure is surmounted by a round tower, which rises fifty feet above the roof, and which contains a great number of bells, the largest of them weighing between six and seven thousand pounds, and their chimes are remarkably harmonious. The entrance into this building is by seven doors, intended to represent the seven provinces. The omission of a grand entrance is said to be owing to the cautious foresight of the burgomasters who superintended the erection, who thought that, in case of popular tumult, the mob might thus be prevented from rushing in. The interior of the edifice is exceedingly superb; all the chambers being highly ornamented with marbles, statues, and paintings. There is a large magazine of arms on the second floor, which extends the whole length of the building, and contains a curious and valuable collection of ancient and modern Dutch weapons. On the top of the building there are six large cisterns of water, intended as a supply in case of fire, to prevent which all the chimneys are lined with copper. One of the courts of the Stadthouse was occupied as a prison, on two sides of which, below the ground, are the dungeons, the state of which seemed hardly compatible with the mild spirit of the penal code in Holland. We believe that imprisonment is usually very severe in that country; but this may be accounted for by the fact that life is rarely taken as a punishment for crime, and that the prisons therefore contain many criminals who, in most other countries, would have suffered death. The treasures of the famous Bank of Amsterdam, the establishment of which, in 1609, so materially contributed to the prosperity of the town, were formerly deposited in strong apartments on the ground-floor of the Stadthouse. Before the war with France, it was supposed to contain the largest quantity of bullion in the world; the precious metals heaped up there being estimated at not less than 40,000,000*l.* sterling. The French, however, were grievously disappointed when, after their entrance into Amsterdam, it was found that, instead of the immense treasures which the bank was reputed to contain, the deposits of cash had been lent out by the directors to public bodies, whose bonds were found there in great abundance. Nevertheless, it is to this day true that, in proportion to its population, there is no city in Europe which contains so large an amount of disposable capital as Amsterdam; and it is probably more owing to this circumstance than to any other that it continues prosperous under the altered circumstances of the times. The Stadthouse is now used as a palace, to which purpose it was first appropriated by Louis Buonaparte, when king of Holland.

The Exchange, so long famous in the mercantile world, is a plain but stately fabric of freestone, covered with tile, and is in length 230 feet, and 140 in breadth. Twenty-six marble columns support its galleries, which are entered by a superb staircase, leading from the gate. The building is fitted to contain 4500 persons, and is daily resorted to after mid-day by those concerned in mercantile business.

The Church of St. Nicholas, or the Old Church, is of considerable antiquity, but does not claim particular notice in a general account of the town. The New Church is, however, a remarkably fine structure, and is, by the Dutch at least, numbered among the finest

churches in Europe. It is 350 feet in length and 210 feet wide at the transepts; the upper part rests on 52 pillars of hard stone, and the church is lighted by 75 large windows, some of which are finely painted. The pulpit and organ are much admired. The former is adorned with various specimens of sculpture; and the organ has fifty-two whole stops, besides half stops, with two rows of keys for the feet and three rows for the hand, and a set of pipes that imitate with admirable effect a chorus of human voices. The choir of the church contains a marble monument of the great Dutch admiral De Ruyter.

Amsterdam has three theatres, and other places of amusement such as are usually found in cities of similar extent. It contains also rather more literary and scientific institutions than might at first view be expected in a place so exclusively commercial. That called 'Felix Meritis' is the principal: it is supported by private subscriptions, and is held in a large building, containing some fine apartments devoted to philosophy, music, and the arts.

Some of the public institutions of Amsterdam are very remarkable, and claim a brief notice in this place. The 'Rasphuis' is a place in which criminals, whose offences are not capital, are employed to saw logs of wood; and when they are indolent or refractory, they are shut up in a cellar into which water is allowed to run, so that if they do not work at a pump which is fixed there they must be drowned. It is, however, seldom necessary to resort to this mode of punishment. The 'Spinhuis,' or workhouse, is a very singular establishment. In this building one part is devoted to women whose offences are not of an aggravated character, and another to convicts who have been guilty of more serious offences. They are kept strictly apart, and the manner in which they are treated is very different; but they are all engaged in various useful employments. Young ladies, of respectable or even high families, are sometimes sent to this place on account of undutiful behaviour or domestic offences, and are there obliged to put on a distinctive dress, and work a certain number of hours every day. Husbands who have to complain of the extravagance of their wives may send them to the Spinhuis to acquire more sober habits; and, on the other hand, a wife who brings a well-authenticated complaint of misconduct against her husband may have him accommodated with lodgings in the same comprehensive establishment, under the roof of which a great number of poor children are also maintained and educated. The hospitals and other charitable establishments of the city are very numerous, and are maintained partly by voluntary contributions, and partly by taxes imposed on the public diversions.

For the statistical details relating to this town we beg to refer the reader to the article 'Amsterdam' in the 'Penny Cyclopædia.'

ABORIGINES OF CHILI.

The principal chiefs of the Araucanian Indians are called Toquis, under whom are the Caciques. These have the administration of the few laws which are established, and the exclusive power of life and death. There is no intermediate stage between death or acquittal. Execution is performed by all of the tribe who are present, each person pricking the criminal with his lance until he expires; or they prolong his miseries, if the crime be very great, by not allowing the wounds to be of sufficient depth speedily to terminate his sufferings. Adultery is considered the most heinous crime among them, and both parties are subject to death; but at the request of the injured husband, the woman may be pardoned, though she thenceforward becomes an outcast from society. Three or four Ca-

ciques form a tribunal, and one witness is sufficient for or against the accused; but the people are not considered to have that strict idea of honour and truth which such a law would seem to indicate. They have also their wise men or prophets, who are sent for in case of sickness to give information which of the patient's enemies has been the cause of it, and the person whom the prophet names is executed, if he can be caught.

The people of this tribe style themselves *Hijos del Sol*, "Children of the Sun," and worship that luminary morning and evening, by prostration and orations, not forgetting the moon when she is visible. Their idea of death is that it is only a long sleep, to which they all are subject, and that during the interval they pass to a happier country on the other side of the sea. Many of the effects of the deceased are interred with him, under the impression that they may not be unacceptable to him in a future state. Marriage is considered by them as simply a civil contract. When a man has selected a woman for his wife he commences a treaty with the parents, who, if willing, agree for so many head of cattle, and other presents, according to the finances of the man, without consulting the intended bride. A day is then fixed upon; and the husband elect comes in the night, accompanied by a few friends, to steal her away. A sham fight then commences between the parties, which usually lasts for three days, at the end of which the bridegroom is of course victorious, and makes prisoners of the other party, who are detained for some time, feasting and merry-making. Polygamy is allowed among them to the extent of the man's ability to purchase wives and provide for them. But he cannot in any instance put them away, unless on a charge of infidelity or by mutual consent; and, in the latter case, the woman must be returned to her parents with presents similar to those which were made at the period of marriage. Unmarried women wear a string of red beads round each ankle and wrist, which they abandon on becoming wives, when they are allowed to wear ornaments in their hair and ears.

They barter their woollen cloths, which are the principal and almost only articles of commerce except cattle, for salt, indigo, and trinkets. Their weapons consist of large wooden maces, slings, and lances from twenty-four to twenty-eight feet long, made of bamboo tipped with iron,—an unwieldy weapon, but which they handle with great dexterity.

Previous to eating or drinking they dip their forefinger three times into the vessel, and sprinkle three times over their heads, which are turned towards the sun; and they are particular in their ablutions before and after meals. They take especial care of their teeth which are generally beautifully white and regular. The belief that those who die go to a better world, prevents any mourning or symptoms of sorrow from being evinced on the occurrence of a death. A plant, called by them *panguc*, very much resembling our rhubarb, is to them almost like the cocoa-nut to the Eastern nations: when young it is a nutritious food, some parts of it are taken medicinally; and, when old, it is used for tanning. The Caciques are distinguished from the mass of the people by a plume of white feathers.—*MS. Journal of a Voyage of Discovery.*

Drowning a Fish.—The ravenous nature and great strength of the shark are well known, yet the divers in the East-Indian pearl-fisheries think little of entering the lists against him, armed with a strong piece of wood sharpened at both ends. Awaiting the opening of his enormous mouth, they thrust in their arm, holding the wood perpendicularly, and his mouth being thus kept extended, he drowns.—*Manuscript Journal of a Voyage of Discovery.*

PRESENTS.

THERE is scarcely in language a word associated with feelings so different as those with which the word "present" is heard in Europe and in Asia. In Europe, the offer and acceptance of a present is associated with feelings of esteem, love, and respect; while the word is scarcely ever heard by a European in the East without annoyance and disgust. Yet it is heard continually. In Persia, Turkey, Arabia, and Egypt,—but particularly in Persia—a day does not pass over a stranger's head, from his arrival to his departure, in which the claim for a present is not either openly urged or politely insinuated. It requires a subsequent residence in Europe of some duration, and a rather strong effort of the understanding, to hear any mention of a present with tolerable composure, after having been subject to this annoyance in the East. There is scarcely any Oriental usage which the traveller in the East is so well prepared to illustrate by anecdotes as the system of presents. From a great number of instances which crowd on his recollection, the writer embodies a few in this paper, in the hope that they will prove more entertaining to the readers of the 'Penny Magazine' than those of them in which he was personally concerned did to himself at the time when they occurred.

During our first journey in Persia, we found it customary for the chief person of any village where we stopped to send us, with many compliments, a tray of sweetmeats and fruits. On the first occasion, we received this proof of Persian politeness with much satisfaction, and, after reserving a portion of the agreeable donation for our own use, made over the remainder to the servants. We afterwards remarked, with some surprise, that the person who had brought the present was still loitering about in the yard with his tray. As he had declined what we considered a liberal remuneration for bringing the tray, we had no idea that any thing more than curiosity detained him. We were therefore astounded to be informed by a native servant that the man was waiting for the present for his master,—and that a pair of pistols, a shawl, or some other article of value, would be a very acceptable return for commodities which might have been bought in the shops for half-a-crown. We made the best arrangement we could, but thenceforth accepted no more such presents. We presume that it was our apparent ignorance or backwardness on this occasion which produced the demand as from the master. It is generally understood that, on such occasions, the value of the difference between the presents given and those received belongs to the servant who brings the present. It is, indeed, by affording them such opportunities that the great men in Persia pay their servants, who do not, in general, receive any other wages. The masters are thus enabled, at a trifling cost to themselves, to repay any obligations they may have incurred. When a particularly advantageous return is expected, there is generally a warm contest who shall take charge of the present, and the privilege is sometimes directly purchased from the master. Not only travellers but residents in cities are exposed to this species of civil depredation. The king, the governors of provinces, and the officers of state, can, by the above process, support a large number of domestics and dependents with little expense to themselves:—they have only to send them with occasional presents to such persons as they think able to make a tenfold return. Instances are not wanting of persons who have been ruined by presents from the king; and it is more than suspected that he participates largely, on such occasions, in the spoils made by his servants. It affords a convenient way in which an obnoxious person may be ruined, or a rich man plundered, without affording to the

injured party any room for complaint; indeed, he is supposed to be highly honoured and distinguished by the attentions which ruin him. For the master to bargain with the messenger for a share in what he receives as the bearer of a present is confessedly a mean practice; but it is now very extensively practised, and becomes, indeed, a thing well understood in Persia; and no person has contributed more than the present king to bring it into use. For instance, the king sends every year a dress of honour to each of his sons and others, the governors of provinces. The bearer of the dress is, or ought to be, some person of note; he is treated with much distinction, and the governor is obliged to meet him at some village* in the neighbourhood of his principal city, to be invested with the robes of honour. As he is considered to indicate his sense of the royal favour by the amount of his present to the bearer, it commonly amounts to several thousand pounds. By right, and according to ancient usage, this sum belongs to the messenger, but now the whole is delivered to the king, who returns a trifling proportion, — perhaps from fifty to two hundred pounds, — to the messenger for his trouble. The consequence of this might be supposed to be that persons of inferior importance would be now employed to convey the *keelut* from the king to the honoured object of his favour. But this is by no means so generally the result as might be expected; because it is well understood that the king, in depriving the messenger of his proper remuneration, distinctly recognizes his right to make up, and more than make up, the difference by using the powers with which he is invested in levying contributions on the people in his way. This he fails not to do.

While therefore this system of interested civility presses heavily upon the people who are compelled to accept the presents of a superior or of a public functionary, and to make a five-fold return, it is a source of peculiar annoyance to a European residing in the East, whose modes of feeling have not at all prepared him for the operation of the system. In his case, perhaps, no individual intends to draw heavily on his resources; but so many think they may draw a little, that the collective amount of these polite exactions is often very large. A person in a public situation, in particular, — an envoy or a consul, — will receive in this way as much fruit as would supply the shop of a London fruiterer, and as much game as would keep a London poulterer well stocked; and for this, most of which he is obliged to give away, it is necessary to pay sums, the amount of which makes a very serious impression even on the splendid income of an ambassador. Were it not for the consideration of the expense which this system occasions, it would be infinitely amusing to note the weakness of the strongest prejudices before the direct and indirect cupidity which it fosters. A great man, or any man, goes out to hunt: he encounters a wild hog and kills it: while he regards the unclean beast with disgust, it occurs to him that the Europeans like hog's-flesh, and that to them it is a rarity in a country where tame hogs are not allowed to be kept. He therefore says, "Take it to the infidel Elchee," and the men, heedless of defilement, hurry it away; and the Elchee, being on the one hand unwilling to give offence, and on the other having his appetite for pork sharpened by abstinence, directs a sum to be given for the carcase, which would astound a Newgate-market salesman, notwithstanding the amazingly low nominal prices of provisions in the East as compared with those of this country. One of the strongest instances of this kind, showing the anxiety of the Oriental people to accommodate Europeans with presents, occurred, not in Persia, but in Turkey. A Mohammedan of rather

humble rank caught a very young hog alive on the bank of the Tigris, and, clapping it under his arm, strode away with it to our house. The observers, whose notice was attracted by the grunting and screaming of the unclean beast, were, according to the man's own report, perfectly satisfied when they understood that he was taking it as a present to the English Agha. That gentleman, however, according to a rule he had adopted for his guidance on such occasions, declined to receive the pig as a present, but was willing to make a fair purchase of it, and with this the man complied, after some demur, and after pleading for a consideration beyond the value of the animal, on the score of the pollution he had contracted in bringing it to the house. It should be understood that a hog is held in utter abomination by a Mohammedan.

The annoyance of the state of things we have been describing, to a European, is exhibited in so many different forms, especially while actually travelling, that it often requires much experience and great presence of mind to avoid any measure which would be considered to authorise a demand for a present. There seems a general conspiracy among all ranks and parties against his substance, and claims for presents lurk continually around him, and assail him in all his incomings and outgoings. If the annoyance were limited to the wholesale exactions of persons of consideration, it might be tolerable: but the humblest villager and the poorest wayfaring man will watch for hours his opportunity of intruding a pomegranate or a flower upon the traveller, and if it be inadvertently accepted, it is perfectly impossible to get rid of the man by any other means than that of a multiplied return.

There seems an intense meanness exemplified in the whole system of presents in the East, which it is difficult fully to express by words. So now, to state another form in which this meanness is developed, when a Persian of whatever rank is himself receiving a direct and actual present, and he does not happen to want, or is not particularly attracted by, the article offered to his acceptance, he has no feeling which would make him hesitate to ask that the article may be withdrawn, and the value of it given to him in money. It is usual for a new ambassador from a foreign power to approach the king with valuable presents; and the monarch has been known, on such occasions, to ask what certain articles, pointed out by him, had cost; and, when informed, to say, — "Keep these things, and give me the money!" The writer of this article was present in a company to which a Persian of distinction, who was once in this country, related, in his broken English, the following anecdote, without any other feeling, apparently, than that it would amuse his English friends. The late prince Abbas Meerza once intended to present him with a shawl as a mark of his favour, and sent for a shopkeeper to bring some shawls to the palace, that he might select one suitable for his purpose. Having fixed on a very handsome shawl, he inquired the price. The shopkeeper said, "Thirty tomauns." "I will give you twenty-five for it," said the prince. The man hesitated; and the object of princely favour took the opportunity of exclaiming to the prince, "Give me twenty tomauns, and let him keep the shawl." This was accordingly done, probably to the satisfaction of all parties, — the prince saving ten tomauns, the khan getting twenty tomauns, and the shopkeeper not being compelled to part with his goods at an unfair price.

* The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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* Such villages are usually called *Keelut* (the name of the dress), from their appropriation to this purpose.

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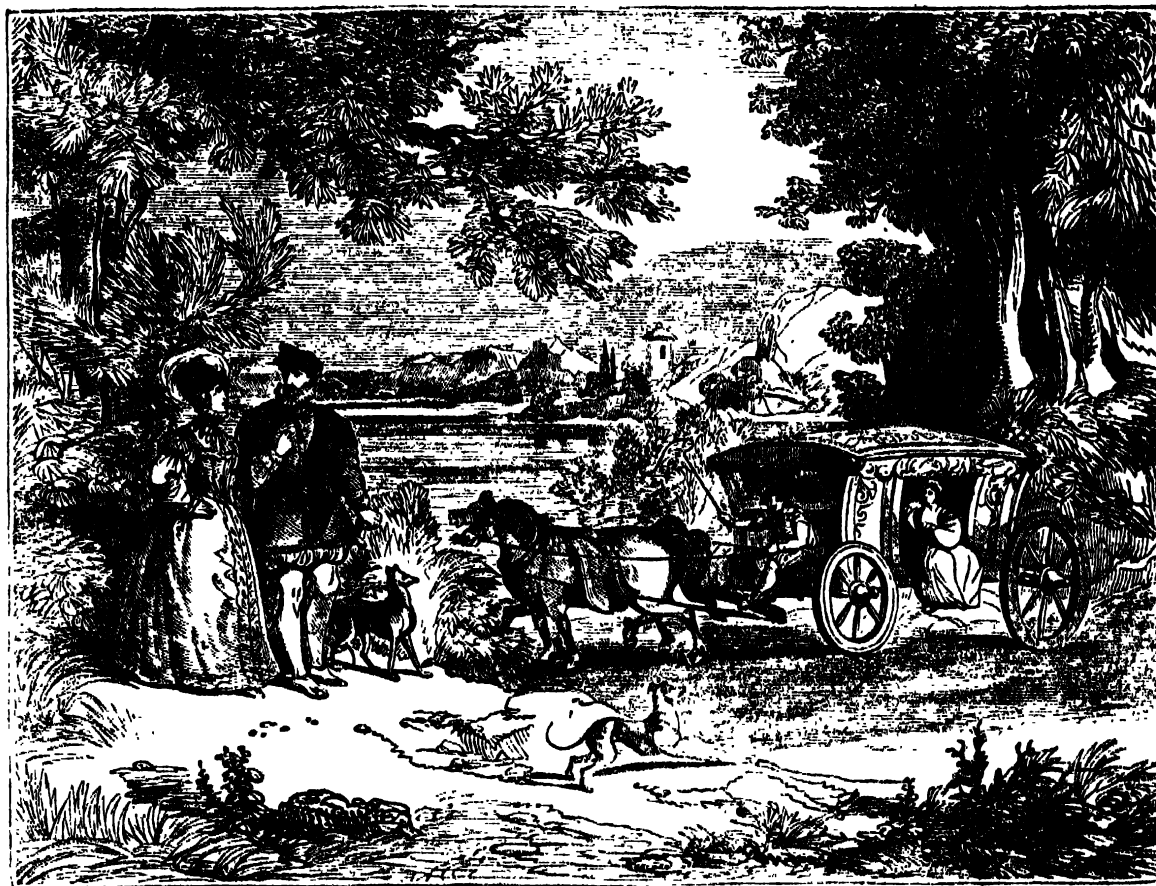
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COACHES.



[Coach and Costume of Milan in the Sixteenth Century.]

COACHES are said to have been invented at the town of Kofse in Hungary, and Matthias Corvinus, the King of Hungary, to have been the first person who ever rode in a coach. Corvinus, however, did not reign until the last half of the fifteenth century, and we have an edict of Philip le Bel, King of France, promulgated as early as the year 1294, prohibiting the use of carriages by the wives of citizens; the invention of the coach by the Hungarians could therefore have been little more than the addition of a roof, with perhaps some other conveniences, to the carriages then in use. Some sort of vehicle for the purposes of luxury, or at least for the conveyance of females and infirm persons, was no doubt used in the earliest times. Among the nations of the East, who considered it disgraceful for women to be seen by strangers, and who at the same time were accompanied by their female relatives in processions or on military occasions, covered carriages were necessarily used in very early times, as we find mentioned in the histories of the Persian wars; though, if we may judge of the vehicle of the ancient Persians by that in use among their descendants, we shall form but a mean idea of their accommodation, the tukht-e-rowan, or travelling carriage of that nation, being little better than a chest suspended between two camels.

Carriages were used by the Romans at an early
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period, and their use increased so much, that it was thought necessary to pass a law, more than two hundred years before the Christian era, prohibiting females from using them within a mile of Rome. The absurd prohibition was however repealed within twenty years; and the excitement produced by agitating the question is a proof that these vehicles were then much used. In the paintings preserved at Herculaneum there are some representations of carriages drawn by two horses, with a postilion on one of them. These carriages are not much unlike some of our post-chaises.

But in the long period of barbarism which accompanied and followed the fall of the Roman empire, the traces of this and almost every other luxury were effaced, and little remained in the shape of a coach but the war chariots, which were still employed by some nations in their battles. There is, however, little delay in the introduction of luxuries, when the possibility of indulging in them is obtained; and the edict of Philip le Bel proves that women at least used carriages at an early period; though the state of the roads throughout Europe would prevent their general adoption, except in ceremonial processions, or in the neighbourhood of large towns. Even in the streets of cities the passage of a carriage must have been disagreeable and difficult from accumulated mud or dust; and to this cause pro-

bably we may be attribute the extension of London to the westward, as the convenience of river passage would induce noblemen and wealthy citizens to build near the Thames, rather than be compelled to wade from their city residences to their country houses through the unpaved streets. In addition to the inconvenience, it was at first thought disgraceful for men to ride in coaches, unless in cases of illness or infirmity; but this is always the case upon the introduction of any new species of luxury. The time is still within the memory of old persons when umbrellas were scarcely ever used but by females, and when the few gentlemen who carried such a luxurious novelty were ridiculed and even insulted by those who a few years later were glad to avail themselves of the same convenience.

In the fifteenth century coaches appear to have been used in processions, or other public ceremonies, rather as an ornament than a convenience, if we may judge by the clumsy form of the vehicle. The entrance of the ambassador Trevasi into Mantua in a carriage is noticed as early as the year 1433; and that of Frederic III. into Frankfort in a covered coach, in the year 1475. It is a curious contrast to the rapidity with which new inventions are now adopted, that nearly a century elapsed before the covered carriage was introduced into England. Stowe, in his 'Chronicle,' under the year 1555, mentions the introduction in these terms: "This year Walter Ripon made a coach for the Earle of Rutland, which was the first coach (saith he) that ever was made in England. Since, to wit, in anno 1564, the said Walter Ripon made the first hollow-turning coach, with pillars and arches for her majestie, being then her servant. Also, in anno 1584, a chariot throne, with foure pillars behind to beare a canopie with a crowne imperiall on the toppe, and before two lower pillars, whereon stood a lion and a dragon, the supporters of the armes of England." This chariot throne was used by Queen Elizabeth in 1588, when she went to St. Paul's cathedral to return thanks for the delivery of her kingdom from the Spanish Armada. At this time coaches were so rare, that all her majesty's privy council and attendants accompanied her on horseback, but they appear to have become numerous before the end of Queen Elizabeth's reign. In 1600, four coaches accompanied an embassy to Morocco through the city of London, and that of Russia, in the same year, mustered eight. A French mission of congratulation on the accession of James I., three years later, rode in thirty coaches from the Tower Wharf to the ambassador's dwelling in Barbican, and returned to their lodgings in Bishopsgate Street in the evening, to the admiration of the citizens.

But the coaches of the sixteenth century were far from being the elegant vehicles now in use; and the common stage or hackney coach is perhaps more comfortable than the royal carriage of Queen Elizabeth, which must have been something like the lord mayor's carriage of the present day, divested of its glass windows, and laid upon the axle without springs, like a waggon. When, in addition to these circumstances, we consider the state of the roads in those days, we shall not be surprised that even queens, on long journeys, preferred a pillion on horseback behind one of their officers,—a mode of conveyance now abandoned to farmers' wives in remote villages.

The preceding cut may be considered a good representation of the ordinary coaches of the sixteenth century; it is taken from the plan of an Italian city, engraved in the sixteenth century, where it appears to be conveying a party on an excursion round the walls. One of the party is seated at the coach-door, where we now place the steps, and the others inside. The

coachman is seated very low, the wheels are high and massive, and the horses are evidently tugging against a dead weight without springs,—much in the manner of a couple of horses with an overloaded brewer's dray. The addition of glass windows to coaches first appears at the beginning of the seventeenth century, and that of springs about forty years later. This last addition, the most important of all for the comfort of the occupant and ease of draught, completed the coach as we now have it. It is still what it was then, a close vehicle suspended on springs, and furnished with doors and windows; increased skill and taste have produced a lighter, more elegant, and easier conveyance, but in all its essential parts the coach remains unaltered.

THE ISLAND OF HYDRA

HYDRA lies off the eastern shores of the Morea, between the gulfs of Nauplia and Ægina; it is one mass of rock, by nature as sterile as a body of recent lava—not a tree grows on its whole surface, a few shrubs merely may be seen scattered among the houses, and a few spots of ground cultivated as gardens at a great expense to the owners;—no flocks feed on it, nor is its surface ever disturbed by a ploughshare. Yet the inhabitants—without soil—without a single well—without the natural possession of one article of convenience or necessity—have become opulent by turning their attention to commerce, and in these seas rival the fame and enterprise of the ancient Phœnicians.

The town is situated about midway along the northern shore of the island, around a small port. The houses are built of stone, in the most substantial manner, and, with the exception of their flat tops, on European models; they are all kept excessively white, and piled one above another to a great height up the steep sides of the hills which enclose the port, resembling the form of an amphitheatre; but the crowded basin below, with the majestic stage of the sea, terminated by the distant scenery of the Peloponnesus, exhibit a spectacle infinitely more striking and sublime than could be presented in any theatre whatever. The streets, from the rugged situation of the town, are precipitous and uneven, but their cleanliness is a strong recommendation; this is, however, obtained at small labour, owing to the abrupt descent, by which the rain washes down all dirt into the sea. The quay, which extends the whole sweep of the harbour, is lined with warehouses and shops, affording proof of the extent of their commerce. The apartments of the houses are large and airy, and the halls are spacious, and always paved with marble; the walls are so thick as to supersede the necessity of sun-blinds in the niches of their deep-set windows; but the neatness and extreme cleanliness of the habitations are peculiarly remarkable, and speak highly for the domestic employments of the Hydriot ladies. The furniture, half Turkish, half European, combines the luxury of the one with the convenience of the other; whilst its solidity and want of ornament show that it has been made for use and comfort, and not for ostentation. There are forty churches in the town, and two of them have steeples built of marble; the island is part of the diocese of Ægina.

The population, amounting to upwards of 80,000, have a much more prepossessing appearance than that of any other class of Greeks; the women are in general pretty; but an universal custom of wearing a handkerchief over the head, and tied under the chin, gives a roundness to the face which is no improvement. A short silken jacket, fitting close to the form, and neatly ornamented, and a large petticoat, containing a great number of folds and breadths,—generally of blue or

green stuff, bordered with stripes of some gaudier colour,—completes their simple costume. Their jetty hair, dark sparkling eyes, and graceful figures, enhanced by half-European manners, render them the most interesting females in the Levant. The men are almost always athletic and well-formed; their dress is a short jacket, neatly embroidered, and full trousers reaching to the knee;—their only weapon is a stout knife, and their only personal ornament is its handle.

The Hydriots have no place of public diversion; the greater part of the male population are always abroad, engaged in business, and the females lead a retired, sedentary life. There is but one decent coffee-house in the town, where occasionally some few assemble to play at cards and chess. Their attachment to their native soil is peculiarly strong, and no vessel belonging to the island ever passes without calling.

Hydra was not inhabited by the ancients, and owes its prosperity entirely to a love of liberty. A few fishermen and others, driven from the continent by the oppression of the Turks, formed the first nucleus of a town, to which afterwards numbers (chiefly from Albania and Attica) crowded; and all those desirous of escaping Ottoman persecution abandoned the more fertile islands, which excited the cupidity of their masters, and sought upon this arid and rocky soil the blessings of freedom. For many years they had purchased from the Porte the privilege of governing themselves; no Turk was resident on the island, nor even suffered to advance into the town beyond the quay. Their tribute in money, which was but trifling, was always ready on the annual visit of the Ottoman fleet, to which, however, they were obliged to furnish annually 150 sailors. Many served in it from choice, and a few had advanced to the rank of Capitan Pasha.

Their commerce, before the French Revolution, was but insignificant; but when the French were shut out from the Baltic, it was the Hydriots who chiefly supplied them with corn from the Levant; and they then began building larger vessels, and pushed their commercial speculations to England and America. Nearly all these vessels have been voluntarily given up to the glorious cause of liberating their country, and converted into ships-of-war and fire-ships, fitted out, for the most part, at the private expense of their Hydriot owners, and the trade of the island has in consequence greatly suffered. The greater part of the male population are sailors, of whom they can send to sea 6000 efficient men, and they have justly gained the renown of being good seamen. Their vessels also are well built, and very beautiful models.

The narrowest part of the channel between Hydra and the main is four miles; the opposite coast of Argolis is very low and flat, but the depth of water in the channel is as much as 240 yards. The little port is not a quarter of a mile wide either way, but as it is so well sheltered, vessels lie close to each other and to the shore;—the water in it is about fifty-five yards deep. By moonlight it presents one of the finest scenes imaginable; the white houses of the city hanging on the steep sides of the mountain appear in the night like a mass of snow, and the lights sparkling in the distance from the open windows shine like stars of gold upon a silver ground. About three-quarters of a mile to the eastward is another small harbour, called Port Mandraki, and there is one (Port Molos) towards the west end of the island. A remarkable feature in the appearance of Hydra is the immense number of windmills, displaying their white sails from every crag; and the barren sides and summits of the rock are studded with monasteries, on one of which is a signal station commanding a very extensive view to seaward, and hence the town receives early intimation of naval movements.

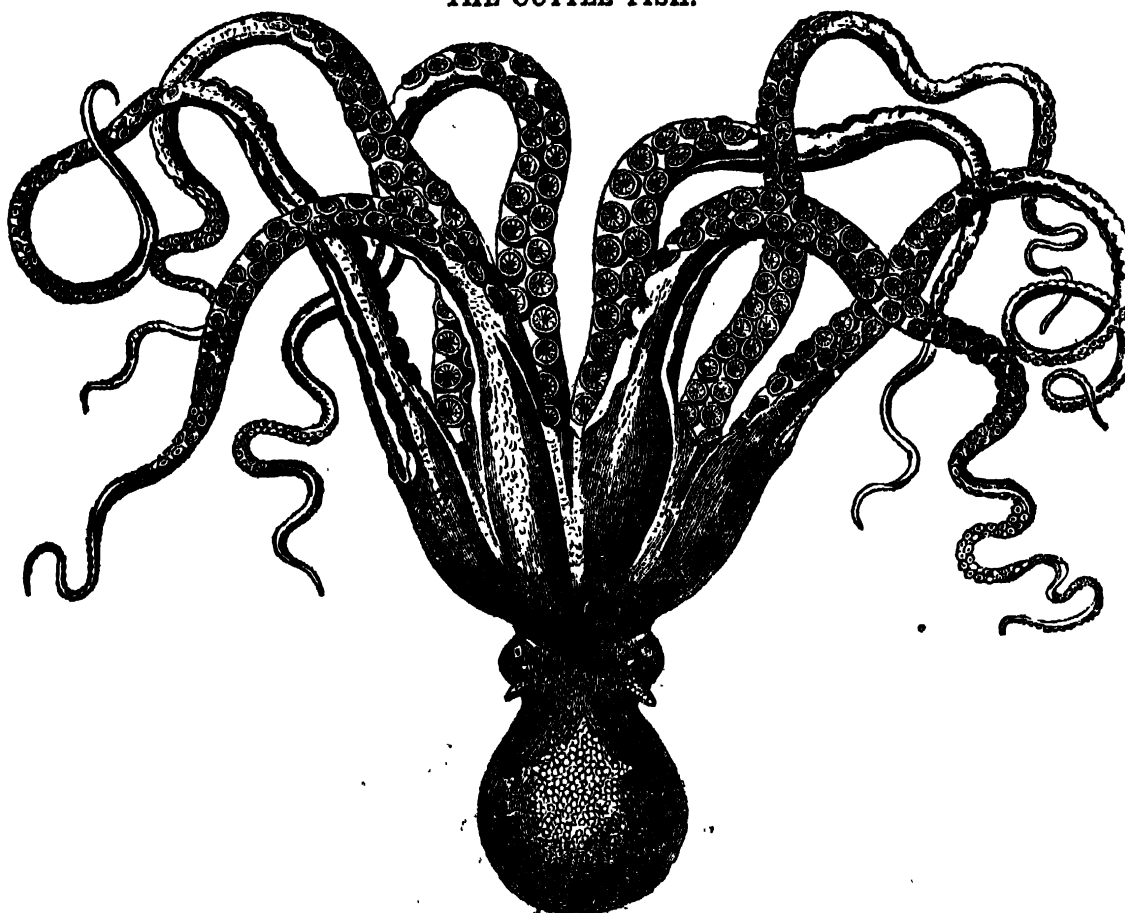
The defence of the town and harbour has been attended to with great care; the batteries at the entrance of the harbour are very strong and well constructed, and all the passes leading to the town are protected by forts, which, in addition to its naval strength, caused Hydra to be respected by the Turks during the war, who, with great reason, dreaded entering the channel between it and the main, on account of their fire-ships.

The Hydriots preserve the taciturn character of the Albanians, from whom they are descended: they despise the mirth and loquacity of the Moreots; and though too much absorbed in commercial pursuits to attend to intellectual improvement, there are many who, from the intercourse with foreigners which that very circumstance has afforded them, are able to speak three or four languages. Within these few years, however, several schools have been established, in which the rising generation are instructed in ancient and modern Greek, the vernacular language of the island being Albanese. There is a public library, and more than one journal has appeared, all strongly liberal in principle. The great desire of knowledge and natural aptitude for improvement will doubtless continue to give the Hydriots a leading hand in the administration of the affairs of the present kingdom of Greece, of which it now forms a part.

Horsemanship in Chili.—The amazing number of horses with which the country is overrun has rendered the lower orders complete Bedouin Arabs. Even the poorest man is not without his horse, which can be purchased for the small sum of five or six dollars, nor will any one walk the length of a street. Continually on horseback, they think little of a journey of two or three hundred miles. Their legs become bent from being so constantly in the saddle, which consists of a number of sheep-skins dyed of different colours, strapped on the horse's back and forming a wide but soft seat. The stirrups are mostly cut out of wood, ornamented with a little carved work, but still very clumsy. The orifice is just sufficiently large to admit the toe; they are partial to large spurs, and the rowels are sometimes even of the circumference of a dollar. They are all provided with the lasso, which is a thong of hide cut from the skin in one piece: one end of this is secured to the strap of the saddle, the other is kept (when likely to be required) coiled up in their left hand, with the noose extended in their right. When about to throw it, they whirl it two or three times over the head, and then let it go. It is very rarely indeed, perhaps never unless with young men, that they miss their mark: so dexterous are they in the use of this really formidable weapon, that they will catch an animal by the leg while running; and the horse seems to partake of his master's skill; for if any powerful animal has been arrested by the lasso, he immediately places himself so as to receive the strain on his side, and leans over to counteract the shock. In attacking their enemies or committing depredations on each other, they watch the opportunity, while riding, just to throw the noose over them, and ride off at full speed, dragging the unfortunate victim over the mountains until life is nearly or quite extinct.—*Manuscript Journal of a Voyage of Discovery.*

Indian Notions of the East India Company.—As we sailed along the shore (near Calicut on the Malabar coast), boats came off to us at a distance of eight or ten miles, to sell us fresh provisions, which are cheap almost beyond belief. One of the adventurers, a little Indian, was so elated by the success of his speculation, that, as he stepped out of the ship, he exclaimed, "Long live the Company *bahaudur!*" The Company, to these people, is something like the *kablah ahlum* to the Persians; or the grand lama to the Tartars. They cannot conceive that any thing greater than the Company can exist among Europeans; but whether it be human or divine few of them can decide.—*Mortier's Second Journey.*

THE CUTTLE FISH.

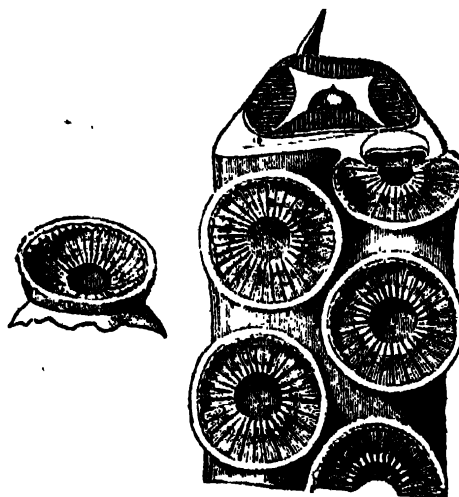
[The Cuttle Fish.—*Octopus vulgaris*.]

THE marine animal represented in our wood-cut is the *Octopus vulgaris*. According to the arrangement of Lamarck, which is usually followed in describing the invertebral animals, the *Octopus vulgaris* is the type of the genus *Octopus*, in the subdivision *Sepiaria* of the order *Cephalopoda*. Before we state the peculiar characteristics of the species before us, we shall offer a few general statements concerning the animals with which it is classed.

The Cephalopoda may, in their external form, be regarded as made up of two parts,—the body, consisting of a bag-shaped envelope which contains the viscera, and the head, surmounted by jointless arms, or feelers. If we consider these parts in detail, we find that the sac is, in some species, destitute of any appendage, while others are furnished with fin-like expansions. In its consistence it varies greatly in different species. In some it is strengthened internally along the back by horny ribs, or by testaceous plates such as that which is so well known under the name of "Cuttle-fish bone." This substance was formerly much valued in medicine as an absorbent; it is still prized by school-boys for the purpose of getting blots out of their copy-books, but is now chiefly used in polishing the softer metals. In other species the body is protected externally by spiral shells. In some of the species the head is connected with the body by what may be considered as a neck; but in others this is wanting. Between the head and the bag there is an opening or funnel, with a projecting aperture, which serves to convey water to the gills and to carry off the excreted matters.

On the summit of the head is a flattened disc, in the centre of which is placed the mouth, which, in several species, has exactly the form and consistence of a parrot's beak. This is not the only organ in which a resemblance to birds is found; for between the two

jaws there is generally a horny tongue, and the gullet swells into a crop, the contents of which are remitted to a real gizzard,—fleshy, and very strong. The mouth does not appear in our wood-cut, for the margin of the disc in which it is placed is surrounded by the arms or feelers, which are usually eight properly, as in our specimen; but most of the species are also furnished with two organs, of similar structure but larger dimensions, which have been called the feet. Both the arms and feet are covered with numerous suckers, by which the animals are enabled to seize their prey and to attach themselves to bodies with great tenacity. The structure of these suckers is shown in the smaller wood-cut, which represents a transverse section of one



[Suckers of the Cuttle-Fish.]

of the arms of the Octopus. They are arranged in rows, which are one or two in each limb, according to

the species; the axis of each arm is furnished with a nerve and artery. The eyes of the Cephalopoda are two, one on each side of the head: they are large and of a complicated structure, evincing great power of vision in the living animal; they complete the strange aspect of a head which M. Bory de St. Vincent fancifully compares to that of the mythological Medusa with its writhing serpents. They are furnished with ears, which are situated in the cartilage that supports the arms, but which have no external opening, nor are the covering integuments thinner there than in the other parts. No organs corresponding to those of taste and smell have been discovered, but the sense of touch appears to be extended over all the surface of the body, and to be developed with peculiar delicacy in the arms or feelers.

Such of this class of animals as are best known exhibit a degree of intelligence which the observer is, perhaps unnecessarily, surprised to discover in a creature of such appearance, and which that surprise possibly leads him to consider greater than it really is. They are endowed with considerable courage, mingled, however, with such discretion as prevents them from allowing any irascibility to bring them into a bodily and doubtful conflict with their opponents or intended prey, and have recourse to a very peculiar manœuvre to surprise their victims and escape their enemies. They secrete a thick and intensely-black fluid, which is reserved in an internal gland, and can be discharged at will through the funnel. It mixes readily with water, which it discolours, and thus forms a covert in which the animal can conceal itself, or from which it can pounce upon its prey. That the black fluid is employed for this purpose seems now to be generally allowed, although it is a point which was left doubtful by Swammerdam, who only remarks that the cuttle-fish which he found dead on the sea contained a greater quantity of this matter than those which were brought to him alive. He goes on to say,—“The liquid is insipid to the taste, without the least sourness or bitterness; so that I cannot see how this insipid substance, by being boiled with the cuttle-fish, can in the least contribute to give it an extraordinary relish, as those pretend who feed upon it, though the most general manner of using the fish is barely to give it a drying in the open air. The ink taken out of its bag and poured into a glass coagulates and grows hard in a few days, when it separates into a great many little pieces, which ground upon a stone, afford the most elegant black paint. This convinces me that the Indians prepare their ink with nothing but this juice. I have even observed that this substance, while in a liquid form, struck so strong a black that no washing could get it out.” According to this conjecture of Swammerdam, it is now generally admitted that this fluid forms the basis of the Chinese ink, commonly called “Indian ink,” which is so much esteemed in Europe for the useful and delicate gradation of tints which it affords.

All the species of cephalopoda reside in the sea, and are widely distributed from the arctic to the equator; but, like most other animals, attain their greatest size between the tropics. They are nearly of the same specific gravity with the water in which they float about, and their motions are in a great measure regulated by its changes. It appears, nevertheless, that they are able to increase or lessen their weight, and consequently to rise or sink in the water at pleasure. Their progress in the water is generally slow even with their utmost efforts.

Having given this general description of the class of animals in which the *octopi* are found, we have narrowed our ground in the description of the particular genus; to which we now proceed.

The Octopus has a fleshy body, obtuse below, and

contained in a bag that is almost round. It is in no part hard, having neither internal “plate” nor external shell. It is destitute of the two “feet,” but is provided with eight long and flexible limbs of equal size, tapering to the extremities, with which it embraces, in the manner of the constrictor serpent, that which it seizes. The suckers by which it so forcibly grasps the object of which it takes hold add not a little to the sensation of horror which its embrace inspires. Lamarck was misled, by the statements of Péron, to conclude that those species which, like this, had the body naked, round, and destitute of fins (which, in the other *Sepiaries*, are the organs of motion), could not swim at all, but were obliged to crawl at the bottom of the sea. We are, however, bound to believe M. Bory de St. Vincent, who assures us that the octopus has the power of somewhat lengthening its obtuse body, and can then, by the means of its arms, work its way swiftly through the water. Not only are they able to divide the water, but it is their frequent practice to pursue their prey through it. It is true, nevertheless, that they prefer to remain among the rocks, where the crustaceous animals are their habitual prey; and, as they prefer the species which man uses for food, they do much injury to the fishing interest, when, towards spring, they resort in great numbers to the coasts. They are, however, themselves sometimes used for food. The flesh is not very delicate; and it is so firm and hard that it is usually well beaten in order to render it more tender and easy of digestion.

Montfort, who was not ignorant of natural history, but whose imagination was not controlled by his knowledge or good sense, has greatly exaggerated the intelligence of the octopi, and has related the most incredible things of their manners. He describes them as capable of all the tenderness and jealousy of love; very ardent in combat, and bold assailants, attacking even man while swimming, and, by the enlacement of their arms, preventing him from all motion, and causing him to perish. Their enemy or prey, interlaced, like a *Laocoon*, in the thousand folds of their horrible arms, drowns or is suffocated, while they strike into the body their formidable vulture-beak and rend away the quivering flesh. Montfort adds, that some of the octopi attain to such an immense size, that he compares them to islands and mountains; and that the famous “kraken” of the north, which we have been accustomed to regard as fabulous, is nothing else than an animal of this description, capable, not only of stopping a ship under sail, but even of upsetting it, in order to devour the contents. This writer even went so far as to introduce into Sonnini's edition of Buffon the representation of a kraken dealing in this manner with a frigate. Deshayes and Bory de St. Vincent are both much offended with Montfort for his doings with the cephalopoda. The latter justly remarks, that such tales are highly discreditable in serious works; and the former knows not whether most to admire the tales themselves or the effrontery of the author in concluding that he could make naturalists believe them. These are, however, rather exaggerations than inventions. It is certain that the octopi do attain to a very large size in the Indian seas; and there is nothing improbable in their taking hold of a man and drowning him. It is said that they also do sometimes grasp the boats under the water, and that the Indians carry hatchets with them to cut off the animal's arms, and thus get rid of the danger and obstruction.

When the octopi are irritated, they change their colour, passing from a reddish to a deep purple with great rapidity. This power of varying its hue is much more developed in this genus of cephalopoda than in the *cameleon*.

The above account of the genus, in which only four species are described by Lamarck, applies of course to

the individual species before us, which is only specifically distinguished by the cups arranged in double rows, and set somewhat apart, and by the conical prolongations of the skin which appear between the eyes and on the back. This last characteristic was first noticed and described by M. Savigny, and is represented with great exactness in one of the plates to the great work on Egypt, from which our wood-cut is copied.

OLD TRAVELLERS.

WILLIAM DE RUBRUQUIS.—No. III.

THE reception of the monk at the court of the great Manchu-khan was not very hospitable at first. This court was chiefly an encampment. It is difficult to fix its position, but Rubruquis says it was at the distance of twenty days' journey from Cataya, or China. The Tartars were astonished to see the monk come to court barefoot; but a boy, brought out of Hungary, explained to them how, by the rules of the Minorite Order to which he belonged, he was obliged to go with naked feet. The next day, however, the friar found the ends of his toes so frost-bitten by the extreme cold of the country that he was obliged to allow himself the temporary indulgence of warm Tartar boots.

A number of Nestorian priests, and others professing Christianity, were living tranquilly under the shadow of the khan's court. One of these, in consequence of a vision, had arrived—and also from the Holy Land—only a month before Rubruquis. He was “an Armenian monk, somewhat black and lean,—clad with a rough hair coat to the middle leg, having over it a black cloak of bristles, furred with spotted skins, girt with iron under his hair-cloth.” This Armenian's object was the conversion of the grand khan to Christianity. Manchu seems, indeed, to have been well disposed towards the Christians at this time. His favourite wife, but lately deceased, had been of that faith, and his first secretary was a Nestorian.

Nine days after his arrival at the court, Rubruquis was admitted to an imperial audience. The Tartars conducted him and his companions to the entrance of a large hall, which was not closed by wooden doors, but by curtains of felt. There their persons were searched to see whether they carried any concealed arms about them. The Tartars then lifted up the felt curtains, and the monks entered the presence of Manchu-khan, singing the hymn beginning—“*A solis ortus cardine.*” The great khan was seated on a bed, and he was clothed in a spotted skin or fur, bright and shining. (What the worthy monk calls a bed was probably much the same piece of furniture still used as a seat by the Turkish sultan when he gives an audience of ceremony, and which is something between a post-bed and a sofa.) He is described as “a flat-nosed man of middle stature, about the age of five and forty years.” In approaching the mighty monarch, the friar merely says that he had to bend the knee, but we suspect he must have had to perform the *colou*, or the long prostrations, and the knocking of the head nine times to the ground, as now exacted in China by the Tartar emperors. Writing to the devout and scrupulous French king, as he does in relating these travels, Rubruquis evidently softens down matters more than once, in order to conceal how much he was abused by the Tartars, both as a minister of the Christian church and as a sovereign's envoy.

He says that, at this audience, before they proceeded to any kind of business, Manchu invited them to drink. The friars partook sparingly of the liquor; but their interpreter, whose devotion to fermented mares' milk we have already noticed, took his place by the side-board, and drank to excess. Rubruquis says that, when called upon to speak, he explained by means of

his tippling dragoman why he had come so far in search of the khan; entreated for permission to stay and teach his religion to both court and people; and stated, that though he had brought no wealthy presents or earthly goods with him, he could render heavenly services. “Thus far,” says the friar, with much simplicity, “I understood my interpreter, but further I could not perceive any perfect sentence; whereby I easily found he was drunk, and Manchu-khan himself was drunk also, as I thought.” It must certainly have been most mortifying to the friar, who was solemnly impressed with the importance of his mission, to find that, after the dangers and fatigues he had undergone, all that he could obtain from the great khan was permission to remain in the country for two or three months until the cold season should be passed. The people about the court of Manchu, like those he had met with at the court of Sartach and elsewhere, questioned him touching the riches, but evidently cared little for the religion of Europe. Their tolerance arose from indifference: they placed the Christian priests they were acquainted with in the rank of conjurors and quack-doctors; and the conduct of these priests was not calculated to elevate them or their faith in the eyes of the Tartars. Rubruquis found the Nestorians pretending to be in possession of the faculty of working miracles, and curing disease only by administering holy-water and exhibiting the crucifix to the sick. But in looking into this matter, the friar discovered, to his astonishment and horror, that they mixed rhubarb with the holy-water, which they gave their patients to drink in copious doses; that they carried lances, and swords half drawn out of their sheaths, as well as the Cross, to the side of the sick bed; and that, in all their religious ceremonies, they mingled Tartar rites and Pagan superstitions with corrupted observances of the Catholic church. He endeavoured to impress on the minds of these Nestorians that they were acting wickedly in all this; but they would not be convinced. Some time after, the Pagan Tartars, the Mohammedans,—of whom many had already penetrated into this part of Asia,—and the Christians, were assembled, by order of Manchu-khan, to debate in public on the merits of their respective faiths. Rubruquis took part in this debate, but, owing probably to the habits of his interpreter, he seems to have made no converts. The meeting, however, ended without violence or dissension, for when all parties had spoken, “they all drank together abundantly.” While at this encampment, the friar became acquainted with a Christian woman from Metz in Lorraine. She had been taken captive by the Tartars in Hungary, and carried into the desert;—at first she suffered great misery, but having married a young Russian, who was also a prisoner, and who understood the art of building wooden houses (a craft much esteemed by the Tartars), she became tolerably comfortable, and the mother of three children.

A few weeks before Easter, Manchu-khan broke up from his encampment, and, crossing the Changai chain of mountains, went on to Kara-korum, or Karakûm, a city on the east side of the river Orkhon. He took Rubruquis and his companions with him, and, on the way, he entreated them to pray to God in their own fashion for milder weather, as it was intensely cold and stormy among the mountains; and many of the mares, ewes, and other animals in his train, were with young, and about to bring forth. On Palm Sunday, at day-break, they were near Kara-korum, and the friar says he blessed the willow-boughs he saw on his road, though as yet there were no buds upon them. This Kara-korum, of which no traces have been found in the desert for some centuries, is said by Marco Polo, who visited it about eighteen years after Rubruquis, to have been the first city in which these Tartars ever fixed

their residence. The Venetian also informs us that it was surrounded by a strong rampart of earth, there being no good supply of stone in those parts; and that outside of the rampart, but near to it, there stood a castle of great size, in which was a handsome palace occupied by the governor of the place. In Rubruquis' time, this palace was occupied by the grand khan himself. It was built, as well as the city of Oktai-khan, by the son and successor of the great conqueror Gengis-khan, about the year 1235. Oktai-khan's nephew, the Manchu-khan so often mentioned, was the first of the dynasty that made it his principal residence. Rubruquis says of the city,—"There are two grand streets in it, one of the Saracens, where the fairs are kept, and many merchants resort thither, and one other street of the Catayans (Chinese), who are all artificers." We may remind our readers here that the Tartars had already conquered a great part of Northern China, and that the whole of that empire fell under Kublai, Manchu-khan's immediate successor, in 1280, of about a quarter of a century after Rubruquis was at the Tartar court.

Established in the city of Kara-korum, the friar found, to his surprise, a French goldsmith, who had a wife born in Hungary, of Mohammedan parents, and a son born to himself in Tartary. There was, moreover, one Basilicus, the son of an Englishman, who had also been born in Hungary. This Basilicus, the goldsmith's wife, and son, were all skilled in the languages of the country, and could talk French as well. The goldsmith himself is described by our friar as being an excellent interpreter, a rich man, in high favour with the khan, and an artisan of surpassing ingenuity. He had just finished what he considered his master-piece, which, if the description of it has not been exaggerated, must really have been a piece of mechanism of no mean merit for the thirteenth century. According to Rubruquis, "In the khan's palace, because it was unseemly to carry about bottles of milk and other drinks there, Master William made him a great silver tree, at the root whereof were four silver lions, having each one pipe, through which flowed pure cow's milk, and four other pipes were conveyed within the body of the tree unto the top thereof, and the tops spread back again downwards; and upon every one of them was a golden serpent whose tails twined about the body of the tree. And one of these pipes ran with wine, another with caracmos, another with 'ball,' i. e., a drink made of honey, and another with drink made of rice. Between the pipes, at the top of the tree, he made an angel holding a trumpet, and under the tree a hollow vault, wherein a man might be hid; and a pipe ascended from this vault through the tree to the angel. He first made bellows, but they gave not wind enough. Without the palace walls there was a chamber wherein the several drinks were brought; and there were servants there ready to pour them out when they heard the angel sounding his trumpet. And the boughs of the tree were of silver, and the leaves and the fruit. When, therefore, they want drink, the master-butler crieth to the angel that he sound the trumpet. Then he hearing (who is hid in the vault), bloweth the pipe strongly, which goeth to the angel, and the angel sets his trumpet to his mouth, and the trumpet soundeth very shrill. Then the servants hearing which are in the chamber, each of them poureth forth his drink into its proper pipe, and all the pipes pour them forth from above, and they are received below in vessels prepared for that purpose."

The name of the French goldsmith, the maker of this "most artificial silver tree" was William Bouchier: he was son of Lawrence Bouchier; and at that time he had a brother called Roger, who "was yet living upon the great bridge at Paris." He is frequently men-

tioned under the name of William of Paris by old travellers and other early writers. It so chanced that, while Rubruquis was still at Kara-korum, Master William fell sick, and a Nestorian monk gave him so much rhubarb in his holy water that he was brought to death's door. On learning this our traveller went to the said monk, and entreated him either to proceed "as an apostle doing miracles indeed, by virtue of prayer, or to administer his potion as a physician, according to the art of medicine."

ISAAC AND JOHN WILKINSON.

THE use of coke in smelting iron would probably have been impracticable to any considerable extent, unless under peculiarly favourable circumstances, if the assistance of the powerful blast of the steam-engine had not been called in to act on the kindled fuel. The possibility of adopting the new mechanical force to the production and maintenance of a continuous and sufficiently forcible stream of air was first perceived by Mr. Isaac Wilkinson, an eminent iron master, who first employed coke as fuel under the influence of a steam-urged blast. His son John carried into full operation the speculations of his father. When Messrs. Bolton and Watt first commenced their manufactory of steam-engines, John Wilkinson was the only person competent to execute their castings. They were made by him at his foundry near Wrexham. At this foundry all the ponderous castings for the steam-engines required at the Cornish mines were executed, and conveyed through the whole weary distance by Mr. Wilkinson's teams, until a disagreement between the contracting parties led to the erection of the magnificent founding establishment at Soho. A note in the first part of an interesting work on 'Birmingham and its Vicinity,' by Mr. Hawkes Smith, informs us that "John Wilkinson was a man of remarkable vigour and determination of mind. In private life there was a waywardness and harshness about his character that detracted from the degree of estimation in which he would otherwise have been held. But this very defect, on the other hand, perhaps enabled him the more steadily and unflinchingly to carry into execution those improvements in the iron manufacture of which he felt assured it was susceptible. His father, Isaac Wilkinson, wanted that firmness and constancy of purpose that distinguished his son, but was possessed of quick discernment and versatile talents, and was by them elevated from an originally low condition. 'I worked,' said he, 'at a forge in the North. My masters gave me 12s. a-week;—I was content. They raised me to 14s.;—I did not ask them for it. They went on to 16s. and 18s.;—I never asked them for the advances. They gave me a guinea a-week. I said to myself, 'If I am worth a guinea a-week to you, I am worth more to myself! I left them.' He first brought into action the steam-engine blast, at his works near Wrexham. 'I grew tired of my leathern bellows,' said he in his old age to a young friend, 'and I determined to make iron ones. Every body laughed at me; but I did it, and then they all cried, 'Who could have thought it!' To the same gentleman, in 1779, he said, 'You will live to see waggons drawn by steam. I would have made such a waggon for myself, if I had time.' He was on the verge of an important discovery, for he distilled coals in order to extract the tar, as Lord Dundonald did some years afterwards, without being aware that the gas evolved might be detained and made highly useful." John Wilkinson died in 1808, at the age of eighty years. A tablet of cast-iron points out the spot—an excavation in a rock on his estate at Castle Head, Westmoreland—where his remains repose in a coffin, constructed under his own direction, also of cast-iron.

Mode of Salutation among the Gambier Islanders.—Their mode of salutation is touching or rubbing noses, in which they have, as in our shaking hands, different degrees: for instance, drawing down the septum, holding the breath, continuing the contact for some seconds, and finishing with a most unwelcome sniff, is considered equivalent to a hearty shake of the hand. This unpleasant ceremony we had to undergo at least a hundred times, repeating it often to the same person.—*Manuscript Journal of a Voyage of Discovery*

Bathing, Cleanliness, Care of the Skin, &c.—A person in sound health and strength may take a bath at any time, except immediately after meals. * * * Cleanliness and attention to the health of the skin is most influential in preserving the tone of the nervous system, and in contributing to mental and bodily comfort. * * * If a bath cannot be had at all places, soap-and-water may be obtained every where, and leave no apology for neglecting the skin; or, as already mentioned, if the constitution be delicate, water and vinegar, or water and salt, used daily, form an excellent and safe means of cleansing and gently stimulating the skin:—to the invalid they are highly beneficial, when the nature of the indisposition does not render them improper. A rough, rather coarse, towel is a very useful auxiliary in such ablutions. Few of those who have steadiness enough to keep up the action of the skin by the above means, and to avoid strong exciting causes, will ever suffer from colds, sore throats, or similar complaints; while, as a means of restoring health, they are often incalculably serviceable. If one-tenth part of the persevering attention and labour bestowed to so much purpose in rubbing down and currying the skins of horses were bestowed by the human race in keeping themselves in good condition, and a little attention were paid to diet and clothing, colds, nervous diseases and stomach complaints would cease to form so large an item in the catalogue of human miseries. Man studies the nature of other animals, and adapts his conduct to their constitution;—himself alone he continues ignorant of and neglects.—*The Principles of Physiology applied to the Preservation of Health.*—By ANDREW COMBE, M.D.

POLA-PHUCA.

THERE is not perhaps in the United Kingdom a richer collection of natural objects and beautiful scenery in so limited a compass, than is contained in the county of Wicklow, and within a day's drive of the metropolis of

Ireland. And not only is it rich in natural scenery, but it also presents an interesting field of research to the antiquarian;—the ruins of Glandalough, situated amid the silence and solitude of Nature, and indicating a "city in the desert," are of themselves sufficient to arrest attention and invite examination.

Of the three waterfalls in the county of Wicklow, Pola-Phuca is the most striking and remarkable. The Dargle is not properly a waterfall, though the citizens of Dublin are disposed to term it such. Powerscourt cascade descends from a vast height, but the stream of water is inconsiderable, except during or immediately after wet weather; in dry weather it has the appearance, at a short distance, of a fine silver thread gliding down the face of a steep rock. Pola-Phuca, or, as it is sometimes written, *Poul-a-Phuca*, is formed by the descent of the waters of the river Liffey, a considerable stream, which, in leaping down several progressive ledges of rocks, brawls and foams till the precipitated waters form a vortex below of great depth, and supposed by the peasantry to be unfathomable. Pola-Phuca is understood to signify *Puck's*, or the *Devil's Hole*, an expressive term suggested by the whirlpool. It is not far from Rossborough, the seat of Lord Milton, on the left of the road leading from Blessington to Balymore; and, though situated on the confines of the county of Wicklow, forms a strong attraction to the citizens of Dublin and strangers visiting the metropolis, in their rural excursions.

A bridge thrown over it higher up the river than is shown in our view, contrasts strongly with the masses of rock impending on both sides, and affords a very picturesque effect.



[Pola-Phuca Waterfall. County of Wicklow, Ireland.]

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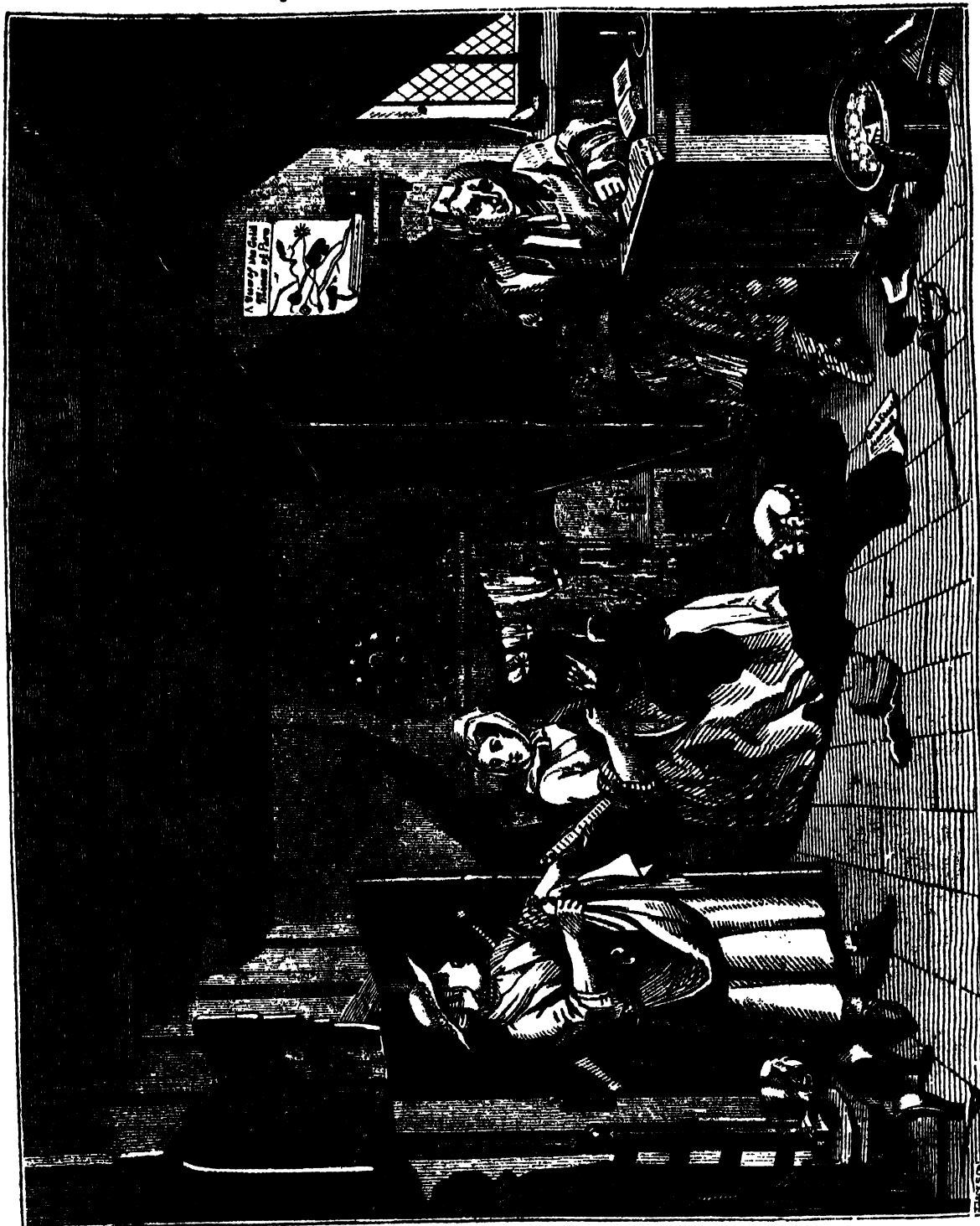
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[August 30, 1834.]

HOGARTH AND HIS WORKS.—No. V.

• [THE DISTRESS PORT.]



THE principal figure in this work of Hogarth is understood to be a portrait of Lewis Theobald, who is best known as one of the editors of Shakspeare. Of this author the world has probably formed too unfavourable

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an opinion, in consequence of the ridicule which surrounds his name in Pope's 'Dunciad.' His edition of Shakspeare is by no means a contemptible performance, although his poems and plays are forgotten.

The print before us is an admirable composition; and the instruction which it contains lies deeper than the merely ludicrous effect at which it might be supposed the artist had aimed. The poet is the representative of a class that the world has been always too much inclined to treat with cold contempt or more insolent pity. The poor and unknown man of letters, surrounded with all the discomforts that belong to an ill-conditioned domestic life,—and yet, in the midst of filth and wretchedness, surrendering himself to day-dreams of wealth and greatness,—is a being that most people are inclined to sneer at. But let the same author work himself into reputation and comparative prosperity, and the same people agree to idolize and flatter him—to make fêtes to exhibit him—to give dinners to hear him talk—to patronize as if they were the patronized. All this proceeds from mistakes on both sides. The author sees the public through a false medium, and the public have been pampered into an equally false estimate of the literary character.

The apparently wretched, but perhaps not totally unhappy, being that Hogarth has delineated, is occupied in the composition of 'Riches, a Poem.' His ideas do not appear to flow with much facility;—and his smiles, and metaphors, and rhymes, are to be sought in 'Bysshe's Art of Poetry,' which lies on his table. He sits half-clothed in his morning-gown, while his wife mends his one nether-garment, and his one shirt and ruffles are drying at the fire. His dress-sword is kicked about the floor, and the cat suckles her kittens on the coat which is to be paraded in the evening at the coffee-house or the theatre. His infant is vainly screaming in bed for a mother's help:—the poor woman is engaged in the not very feminine occupation of repairing her husband's out-door habiliments, and in helplessly listening, with her "mild, patient face and gesture," to the remonstrances of the saucy milk-woman, who exhibits a tally, which nothing but the most hopeless poverty would have allowed to accumulate. The poet is insensible to the degradation which his gentle wife must endure: and he resigns himself to his filthy garret, and to the inconvenience and disorder of his whole household arrangements, to compose 'Riches, a Poem,'—or study 'A View of the Gold Mines of Peru.' When his miseries arrive at their height,—when the milk-woman will trust not another pennyworth, and the baker talks of applying to the "Court of Requests,"—he will resort to the 'Grub Street Journal,' a copy of which lies on the floor, for his means of existence. This is the last degradation,—equivalent to writing, at the present day, dishonest reviews,—attacking individual character,—or garbling and misrepresenting private documents, *because they are private*. From such sins even literary Journals of our own time are not exempt.

And what is to prevent a man of letters from falling into the same pitiable condition as Hogarth's 'Distrest Poet'? First, a careful examination of his own qualifications before he adventures upon the perilous sea of literature, as the business of his life;—and, secondly, a just appreciation of the objects to which this dedication of his faculties and acquirements may be applied with real advantage to himself and to mankind.

In the first place, many men, especially young men, fall into the mistake of despising the toil of trade, and of neglecting the indispensable studies of a profession, for the purpose of surrendering themselves to a dreamy belief that the vocation of an author is one of constant ease,—that he has nothing to do but watch the "moods of his own mind"—that flights of fancy

may be readily coined into guineas—and that "genius," as they call it, is above all rules and all laborious discipline. A man of real "genius"—but one whom the very force of his talent would lead to know the value of constant exertion—has beautifully described the delusions of this feeling:—

"My whole life I have lived in pleasant thought,
As if life's business were a summer mood;
As if all needful things would come unsought
To genial faith, still rich in genial good;—
But how can he expect that others should
Build for him, sow for him, and at his call
Love him, who for himself will take no heed at all?"

This is precisely the mistake into which the young man who thinks his genius is to do every thing—who expects "that others should build for him, sow for him,"—invariably falls. His "genius" will do nothing for him without cultivation. If he cast himself upon the world without an independence and without a profession, fancying "all needful things will come unsought,"—above all, if with these unreasonable expectations he rush into marriage—the state of 'The Distrest Poet' will but feebly exhibit the wretchedness that awaits him. He will be haunted by thoughts of

— "the fear that kills;
And hope that is unwilling to be fed;
Cold, pain, and labour, and all fleshly ills;
And mighty poets in their misery dead!"

Wordsworth, from whose fine poem, 'Resolution and Independence,' these and the preceding lines are extract. I, describes himself as recalled to the trusting state of mind which is founded upon a contemplation of what strenuous exertion can do, by hearing the story of a poor old man, who wandered about year after year, and gained a livelihood by gathering leeches out of the pools of barren moors:—

"I could have laughed myself to scorn to find
In that decrepit man so firm a mind.
'God,' said I, 'be my help and stay secure;
I'll think of the leech-gatherer on the lonely moor.'"

The leech-gatherer was a useful member of society, for he ministered, in however small a degree, to the relief of the sick and the wounded: the poet, who has laid the leech-gatherer's example to his heart, is a highly useful member of society, for, by diligent cultivation of his powers, he is enabled to elevate the moral sense, while he promotes the intellectual enjoyment, of that great body of people, in all parts of the earth,

"Who speak the tongue that Shakspeare speaks."

Without cultivation, he would, perhaps, have been a scribbler in a garret.

The objects to which a literary man may dedicate his faculties with advantage need not here be recited. The unerring guide of his path must be a desire to be useful. Whether he yield himself to the refinements of elegant literature, or devote his whole mind to conquering the difficulties of science and philosophy, the widest field of utility lies before him. It is the desire to cultivate this field which can alone give dignity and consistency to his exertions. This desire will prevent his being a flimsy essayist or a fraudulent reviewer;—it will save him from becoming a minister to a depraved appetite for scandal;—it will render him not ashamed of being called a drudge and a compiler by those feeble persons who consider learning and dulness as synonymous. If he thoroughly obey the impulses of this desire, he may find even literature a gainful profession:—he may be the head of a happy household;—he may be honoured without the aid of a patron;—he may trust to the approbation of the people, and despise the applause of clubs and coteries, who erect temples to selfishness in the name of society, and end in becoming their own worshippers.

MINERAL KINGDOM.—SECTION XXII.

[The author of the Articles in the 'Penny Magazine' on the products of the 'Mineral Kingdom' has been for a long time prevented from continuing the series by matters of urgent importance requiring his attention. He hopes to be able to send his contributions henceforth at short intervals.]

IN conformity with the plan upon which we set out, the next product of the Mineral Kingdom of which we propose to treat is **IRON**. Of all the substances which we derive from the bowels of the earth, this is the most indispensable to our wants. In whatever situation we may be placed, we cannot look around us without iron meeting our eye in some shape or other; and even where it is not seen, it has been more or less employed in producing almost every object that ministers to our necessities, our comforts, or our luxuries,—in short, it has been one of the great instruments by which the civilization of the human race has been accomplished.

Next to coal, iron is the most important of the mineral treasures of the United Kingdom, and forms one of the main sources of our national wealth. The total amount of coals raised annually in Great Britain and Ireland cannot be less than 20,000,000 of tons; and taking seven shillings a ton as the average price at the pit's mouth, we have a total value of 7,000,000*l*. The gross quantity of iron produced by the furnaces of Great Britain has been calculated to amount annually to about 700,000 tons; and the value of *pig-iron*, as it is technically termed,—that is, iron in its rudest state, before any other labour has been expended upon it beyond what was necessary to extract the metal from the ore,—at the present market price of 5*l*. per ton, gives a total value of 3,500,000*l*.

But before proceeding with our account of the natural history of iron, some preliminary observations on metals in general will be necessary for such of our readers as are unacquainted with chemistry and mineralogy. All branches of science are so intimately connected one with another, that it is scarcely possible to give an intelligible popular view of a part of any one of them without presupposing in the reader some acquaintance with others. Scientific terms and hard names must of necessity be used in those cases where there are no other forms of words by which the meaning can be conveyed.

The term *metal* is applied to those mineral substances which exhibit, when in a state of purity, that is, when freed from combination with foreign ingredients, the following properties:—They are impenetrable by light, even when beaten out into plates or leaves of extreme thinness, and are therefore said to be opaque; they have that peculiar shining lustre which we term *metallic*; they are combustible, but at various degrees of heat; they are good conductors of heat and electricity, that is, heat and electricity pass rapidly through them; and they are, for the most part, heavy when compared with other bodies, and are thus said to have a high specific gravity. This last property, however, is not universal, for some are so light as to swim on the surface of water; but all the metals known in common life are heavy bodies, the lightest of them being nearly seven times as heavy as water, bulk for bulk. There are three other distinctive properties of metals, which, however, are not common to all of them, and vary in degree, viz. *malleability*, or the property of being capable of being hammered into thin plates or leaves (from *malleus*, Latin for a hammer); *ductility*, or the property of being capable of being drawn out into wire (from *ductilis*, Latin for easily drawn); and *tenacity*, or the property of supporting a heavy weight without breaking (from *tenax*, Latin for holding fast). Metals are, moreover, *fusible* (from a part of a Latin verb signifying to melt), that is, are capable of being melted by heat, but at different degrees of temperature, some

of them being liquid at the ordinary temperature of the air,—such as mercury or quicksilver,—others requiring the strongest heats we are capable of exciting in our furnaces before they will soften.

The number of metals hitherto discovered amounts to forty-two, but we shall confine ourselves at present to those which are used in the metallic state in the business of common life, and of which there are eleven, viz. gold, silver, mercury, iron, copper, tin, lead, platinum, bismuth, zinc, and antimony. Of these the first seven only were known to the ancients. Specific gravity is the property which has been determined with the greatest degree of precision, and how various that is will be seen by the following table. An equal bulk of distilled water, at the temperature of 60°, is taken as the standard of comparison, and is represented by the figures 1·00.

Platinum ..	20·98	Silver.....	10·47	Tin	7·29
Gold	19·25	Bismuth ..	9·82	Zinc	7·10
Mercury...	13·56	Copper....	8·89	Antimony..	6·70
Lead	11·35	Iron	7·78		

All these metals are found to stand in entirely different orders, when we arrange them according to their respective specific gravities, fusibility, malleability, ductility, and tenacity, as appears by the following table, in which the metal possessing the property in the highest degree stands first in the column.

SPECIFIC GRAVITY.	FUSIBILITY.	MALLEABILITY.	DUCTILITY.	TENACITY.
Platinum	Mercury	Gold	Gold	Iron
Gold	Tin	Silver	Silver	Copper
Mercury	Bismuth	Copper	Platinum	Platinum
Lead	Lead	Tin	Iron	Silver
Silver	Zinc	Platinum	Copper	Gold
Bismuth	Antimony	Lead	Lead, Bismuth,	Zinc
Copper	Silver	Zinc	Tin, Zinc, and	Tin
Iron	Copper	Iron	Antimony can-	Lead
Tin	Gold	Bismuth and	not be drawn	Bismuth and
Zinc	Iron	Antimony	out into wires.	Antimony
Antimony	Platinum	are brittle.		are brittle.

We have no thermometer to measure high degrees of heat with exactness. Chemists have for that purpose sometimes used an instrument invented by the ingenious Wedgwood, to whom the country is so largely indebted for his improvements of earthenware, and for the classical elegance of forms which he was the first to introduce in that branch of our manufactures,—a debt which the country has never paid, for due honour has never been done to his memory. Mr. Wedgwood having found by experiment that fine clay contracts equally by increase of heat, contrived an instrument which he called a *Pyrometer* (from *pyr*, Greek for fire, —and *metron*, measure); but from the difficulty of always finding clay of the same quality, the principle was not capable of being generally adopted in practice. An instrument has very lately been invented by Mr. Daniel, from which more correct measurements will be obtained.

Mercury remains liquid much below the greatest degree of cold known in our climate; tin, bismuth, lead, zinc, and antimony are fusible at a red heat; iron requires a very high temperature, and platinum one far more intense, before they can be melted. As mercury is only solid at a cold 72° below the temperature of freezing water, we cannot say anything about its malleability, ductility, or tenacity. Iron has so great a degree of tenacity, that a wire not thicker than 0·787 of a line will support 550 pounds weight, while gold, which is infinitely more malleable and ductile, if drawn into a wire of the same diameter, will not support more than 150 pounds.

All metals are simple bodies, that is, they cannot, by any process with which we are acquainted, be resolved into elements still more simple. It is very possible, however,—nay, according to all analogy, highly probable, that future discoveries will show that they are

compounded of two or more substances of distinct natures, perhaps gases. Nothing looks more unlike air than water does, and yet that heavy fluid is composed of, and may, by a very easy process, be converted into, two light gases; and, what is no less strange, one of the gases entering into the composition of that which is most effectual in extinguishing fire, is one of the most inflammable bodies with which we are acquainted. The gases, when once produced by the decomposition of water, can, moreover, by a no less easy process, be re-united, and form water again.

With the exception of gold, silver, platinum, and copper, it is rare to find any of the metals in nature in a state of purity. When so found, the term *native* has been applied to them; and mineralogists speak of native gold, native copper, &c. They are usually found in combination with oxygen, sulphur, or acids; and occasionally two or more metals are combined, when they form what is called a *native alloy*. When united with oxygen, they are said to be in the state of *oxides*; when with sulphur, they are called *sulphurets*; and when with an acid, the name of the acid is brought forward: thus, when lead is found in combination with sulphuric acid, it is said to be in the state of *sulphate of lead*. But in all these states there is usually a great mixture of earths. Metals so combined with foreign ingredients are said, in the language of mining, to be in the state of *ore*. Ores have very frequently a bright metallic lustre,—are often found in beautiful regularly-formed crystals, like salts; but in most cases they would be undistinguishable by a common observer from an ordinary stone. So much is this the case, that it has happened that roads have, for a length of time, been mended with what was thought to be nothing but stone, but which was afterwards discovered to be a metallic ore of great value.

Metals are not peculiar to any of the stratified or the unstratified rocks, for they have been found in all of them; but they are met with in greatest abundance in the inferior strata, and occur chiefly in what are called mineral veins, which are cracks in the continuity of the rock, filled up and branching through it, like the veins which convey the blood through our bodies in endless ramifications. The manner in which mineral veins have been formed is a subject of great obscurity, from the very complicated appearances they present; but, in a great proportion of instances, their formation is explicable on the supposition of cracks and fissures having been formed in the rock by some violent force, the rents so formed being afterwards filled up by the injection of the ores in a fluid state from the interior of the earth.

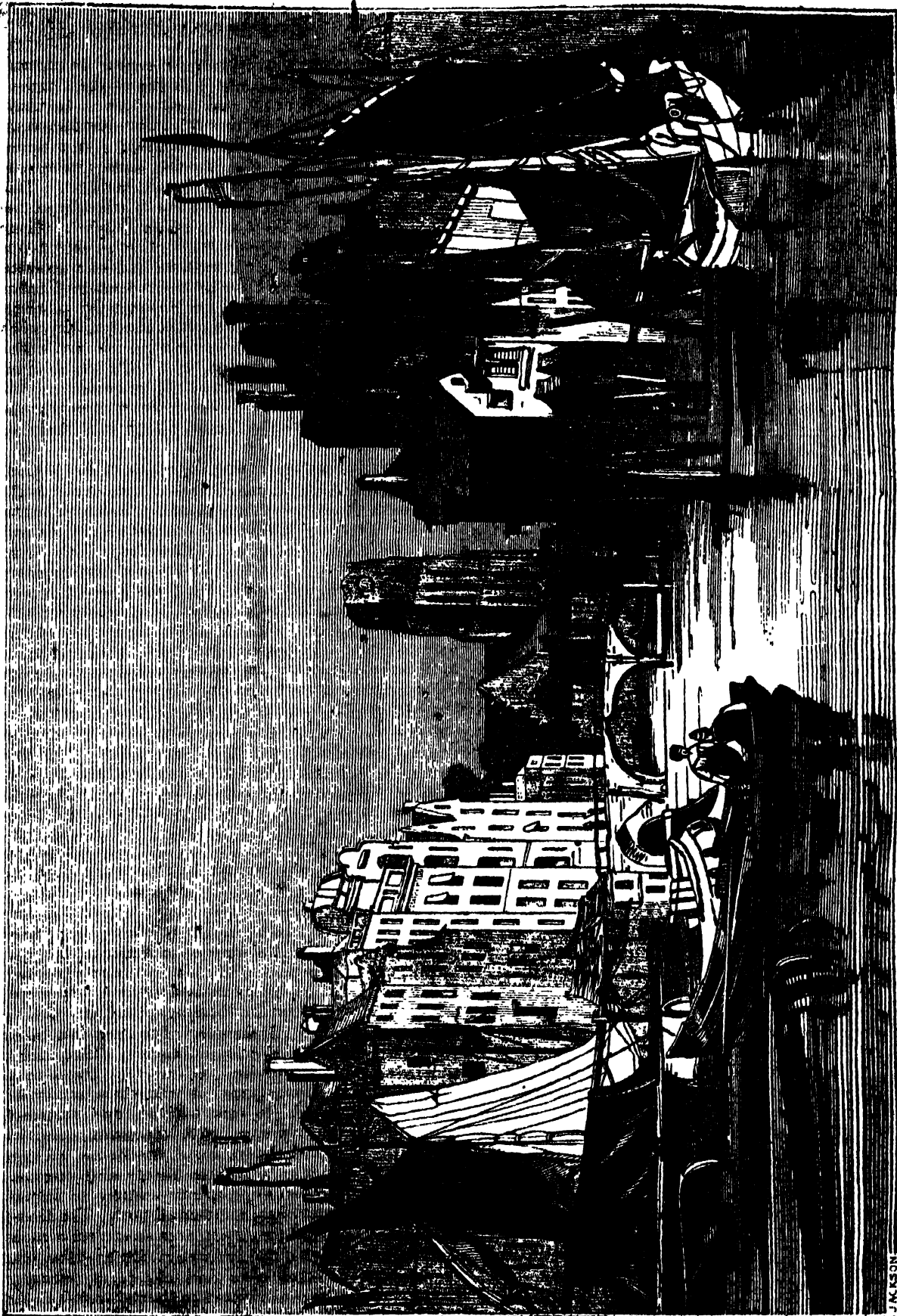
By a series of artificial processes, which vary according to the nature of the ore, the metal is separated from the other mineral substances with which it is in combination. This art of obtaining metals in a state of purity, technically called *metallurgy* (from the Latin *metallum*, metal, and the Greek *ergon*, work), forms a most important department of chemical science, one to which the attention of philosophers cannot be too strongly directed, with the view to discover improvements in working the ores, so as to obtain the greatest amount of metal at the least possible expense. It is much to be feared that a great amount of wealth is lost to the country in consequence of this important branch of manufacture, as it may be termed, being conducted, in very many cases, by persons who have not had the advantage of a scientific education. They are thus not only incapable of applying the principles of science already known, but of taking advantage of those opportunities which their extensive experience in the practical art may afford, of making new and important discoveries, to the advancement not only of their particular department, but of science in general.

ROTTERDAM.

In a late Number of the 'Penny Magazine' an account was given of Amsterdam, the first city of the kingdom of Holland for wealth and population. In these respects Rotterdam, another city of the same kingdom, is inferior only to Amsterdam, although, in nominal rank, it occupies but the seventh place among the towns of its own province of South Holland. This anomaly resembles that in this country which regarded towns with a population of perhaps 10,000 souls as cities and provincial capitals, while others, with a population of perhaps 100,000, were in law only entitled to the rank of villages. Rotterdam is a sea-port town, situated on the north bank of the Meuse, or Maas, which is there about a mile in width; it is about twenty miles from its mouth; and lies in latitude $51^{\circ} 55'$ north, and longitude $4^{\circ} 29'$ east, twelve miles from the Hague, and thirty-six from Amsterdam. The breadth of the town is traversed by the Rotte or Roter, a small river which here falls into the Meuse, and gives its name to the city.

Little is known concerning the origin of Rotterdam. Robert Cenalis, the Bishop of Avranches, in the reign of Francis I., gives it a high antiquity, in his 'Historia Gallica,' affirming that it was founded by one Rotter, king of France, who gave it his name. This statement is supported by the curious old contemporary writer Trithème, who states that it was founded in 806, and that Rutter, the twenty-third king of the French, was interred there. To this there are only three objections: that history knows nothing of King Rutter,—that the situation of the town on the river Rotter sufficiently explains the origin of the name,—and that the site of the town continued to be inundated by the Meuse at a period much later than the time of its supposed foundation by King Rutter. It would hardly be worth while to mention such absurdities were it not for the sake of illustrating the facility with which tales are invented, or analogies are found, to explain things which are thought to need explanation. All that we know with certainty is, that, about the year 1270, the town was walled, and received the title and privileges of a city. The growth of the town to that importance which it ultimately attained was very gradual, but took place principally during the period in which the United Provinces were under the yoke of Spain. The other facts of its history are soon related. Twenty-seven years after the date we have mentioned, the town was taken by the Flemings; and, in 1418, by Waldegrave, lord of Brederode. The town was taken possession of by the French in January, 1794; and it suffered much in the general decline of the Dutch commerce during the long period of war which terminated in 1815. If we add to this that the town sustained much damage in February, 1825, in consequence of an extraordinary rise of the waters of the Meuse, we have exhausted the leading facts in the history of Rotterdam.

Rotterdam owes its prosperity entirely to its advantageous situation as a commercial port. The Meuse forms there one of the safest and most commodious harbours in Europe; and the waters are so deep, that the largest vessels can come and take in or discharge their cargoes at the warehouses of the merchants in the midst of the town, by means of the numerous canals by which, even more than Amsterdam or any other Dutch city, it is intersected. It is owing to this facility that the number of vessels which enter and clear out yearly at Rotterdam has generally equalled, and often exceeded, the number at Amsterdam, notwithstanding the greater wealth and population of the latter port. The passage up the Meuse to Rotterdam is also free from ice sooner than that to Amsterdam by the Zuider Zee; and to this it should be added that, on weighing



[Rotterdam, showing the Church of St. Lawrence.]

J. JACKSON

anchor, vessels can proceed under full sail to the open sea, which is often reached in one tide; whereas those which proceed to Amsterdam are obliged to go round by the Texel.² Nevertheless, vessels that draw more than fifteen feet water cannot proceed directly up the Meuse, but are obliged to go round by the Haring Vliet, and, passing near Hellvoetsluis, and through Holands-Diep, proceed round by Willemstadt and Dordrecht to Rotterdam. The necessity for this cir-

cumnavigation, in the case of very large vessels, arises from the deposits of sand which have been gradually made at the mouth of the Meuse; but latterly a canal has been cut across Voorne Island, from near Hellvoetsluis into the Meuse, through which the largest ships may pass to Rotterdam, instead of the circuitous route by Willemstadt and Dordrecht.

Rotterdam is built in the form of a triangle, the largest side of which extends for about a mile and a

half along the right bank of the Meuse, which here resembles an arm of the sea. The town, as divided by its numerous canals into insular spots connected by draw-bridges, necessarily resembles Amsterdam. Here also the canals are generally bordered with trees, a circumstance which gives to the sea-ports of Holland a vernal appearance which is almost peculiar to them. The town is not fortified, but it is surrounded by a moat, and entered by six gates, two of which are towards the water. The streets of the town are in general straight and long, but narrow. Several of them are so very similar, that a stranger has much difficulty in recognising any distinction. The foot-pavement usually consists of a line of bricks. The long and stately row of houses facing the Meuse, and called, from its row of trees, the 'Boompjes,' is the finest part of the town, whether we regard its buildings or the pleasant prospect over the Meuse. Next to the Boompjes, the quay of the Haring Vleit is the most pleasant place in the city. Many of the houses are built of free-stone, which, not being the produce of the country, must have been brought to the spot at a great expense. The celebrated Bayle once resided on this quay,—and the spot on which his house stood is still pointed out to strangers. The suburbs of Rotterdam are very pleasant, and afford a very favourable specimen of the Dutch taste in rural scenery. The gardens, upon a level with the water, and divided from it by a high raised road, appear to have been all designed by a mathematician; but still their neatness and luxuriance leave a pleasing impression on the mind. Most of the principal merchants of the town have their country seats in the suburbs. Sir John Carr informs us, that upon most of the gates and houses there is a motto indicative of the peace of mind of the owner, or the character of the place; and he supplies the following specimens:—"Peace is my garden," "Hope and repose," "Almost out of town," "Look upon those beneath you," (this was inscribed upon a large house that commanded some little cottages,) "Very well content," &c. These inscriptions are seldom used but by opulent tradesmen; among the higher classes they are considered to be a little tinged with vulgarity, though they sometimes indulge in them.

The houses of Rotterdam are rather convenient than elegant, the peculiar style of Dutch architecture being more than usually prevalent there. They are of the height of four, five, or six stories, and, in some quarters, the front walls project as they ascend, so as to place the higher part of the building several feet beyond the perpendicular. Sir John Carr says that many of them project two or three yards; and adds, that if the freshness of their outsides, and the absence of fissures, did not give the houses the appearance of great stability, the stranger would be induced, by the apprehension of personal danger, to prefer paddling his way in the very centre of the canals to walking in the streets. The bricks with which the houses are constructed are of small size. The windows are in general much larger than in France and England. In many of the houses the ground-floor is not inhabited, but serves, with its gate and arched passage, merely as an entrance to the warehouses behind. In their interior arrangements and furniture, the houses of Rotterdam, and of many other Dutch towns, possess a degree of convenience, lightness, and comfort, which is not often realized on the continent, and is, perhaps, exceeded only in this country. Altogether, no scene can at first be more novel or interesting to a stranger than that which Rotterdam presents;—masts of ships enlivened by gay streamers, beautiful stately trees and lofty leaning houses appear mingled; and at one view he sees before him the characteristic features of the country, the city, and the sea.

Few of the public buildings of Rotterdam are very striking. Among the principal is the church of St. Lawrence, which was built in the year 1472, and the tower of which, according to Martinière, formerly leaned from the perpendicular, but which an architect found means of setting upright again—a fact commemorated by an inscription at the foot of the tower. From the top of this church the Hague may be seen to the north-west, Leyden to the north, and Dort to the south-west; and under its roof are the tombs of the celebrated admirals De Witt and Van Braakel. There are in all fifteen churches in Rotterdam, of which one belongs to the English Episcopalians and another to the Scotch Presbyterians; a few of these churches are fine buildings. There are three hospitals for the poor, the aged, and orphans. The Town Hall is a good specimen of the old Dutch style of architecture; and the Exchange, though rather plain, is a handsome building, finished in the year 1736. The other principal structures worthy of note are the palace of the Great Council, the Bank, the buildings of the East and West India Companies, the theatre, the arsenals, and the gate towards Delft. Among the objects at Rotterdam calculated to interest a stranger are the statue of Erasmus, and the small house in which he was born. The latter has been preserved with much care by his townsmen, and its claim to notice is declared by a Latin inscription, which has been placed in front. Notwithstanding this testimony of the house, however, there have been persons hardy enough to think that Erasmus was born at Gouda, and was only brought up at Rotterdam. But the good people of the latter town, in the zeal of their claim, have successively erected three statues to him whom Pope declares "the glory and the shame" of the age in which he lived. Each following statue erected by the citizens was of more durable materials than that which it superseded. The first was of wood, the second of stone, and the third of bronze. The wooden statue was set up in 1540 on the occasion of the visit of Philip II., King of Spain, to Rotterdam, as sovereign of the Netherlands. The statue is said to have been very well wrought; it held a pen in the right hand, and in the left a roll addressed as from Erasmus, in the name of the city, to the prince, and congratulating him, in Latin verse, on his arrival. The statue in stone was erected in 1557; and in 1572 the Spaniards shot at it with their muskets and threw it into the canal, from whence it was taken out and again set up on the expulsion of the Spaniards. The statue in bronze, which now forms one of the most interesting monuments of the city, was finished in 1622. It is placed upon a marble pedestal, and is surrounded by an iron balustrade. The figure is ten feet high, and represents Erasmus dressed as a doctor, and reading a book, which he holds with both his hands. It ornaments the great bridge of the Meuse, near the Exchange, and the locality has received, on this account, the name of "Erasmus' Place." The statue itself has been applied to purposes never contemplated by those who erected the monument. This figure of a man of letters has been employed as an index of political opinions. Before the expulsion of the Stadtholder and his family in 1795, every concavity in the dress was crammed with oranges; and on other occasions it has been profusely decorated with emblems of quite an opposite signification.

The city possesses a considerable number of literary and commercial institutions. Among them is a society of experimental philosophy, founded in 1769; a society of literature and the fine arts; a college; a grammar school; a public library; a cabinet of antiquities and natural history; a theatre; a chamber of commerce and manufactures; a chamber for the commerce of the Levant and the navigation of the Mediterranean, and a

board. The time of the greatest prosperity of Rotterdam was in the seventeenth and eighteenth centuries; but after 1795 the invasion of the French and the war with England had a distressing influence, not only on the commerce of Rotterdam, but on that of the country in general. It began to recover in the year 1802, but was again very rapidly depressed by the renewal of the war. The following figures, which show the number of the vessels which arrive at Rotterdam during several years, will serve as a thermometer to indicate the influence of war upon the prosperity of this port. The number of vessels which arrived at Rotterdam was 1786 in the year 1802; 850 in 1803; 693 in 1804; 679 in 1805; 381 in 1806; 294 in 1807; 65 in 1808. In the years 1809, 1810, and still more in 1811, 1812, and 1813, the Dutch trade was almost entirely suspended; but the effects of the overthrow of Buonaparte were speedily indicated by the reviving prosperity of Rotterdam. The number of vessels in the year 1814 was 1284; in 1815, 1603; and in 1817, 1731. Since then the trade and population have continued to advance; and the latter, which is stated to have been 48,000 in the year 1813, amounted to 56,000 in 1826, and exceeds 63,000 at present.

SNOW HARVEST.

In England, and other countries of the north, ices are rarely used, and are considered a luxury of the rich; but in the hot climates of the south, and at Naples and in Sicily particularly, they are classed, during the summer season, among the absolute necessities of life, and are consumed, in some shape or other, by all classes down to the poorest of the land. We believe there is no traveller that ever past the warm season in those countries but will agree in estimating them and iced water as the greatest of physical blessings. The wine of the country, though kept in the coolest cellars, and the water, though drawn from the deepest well or most gelid source, become, on the shortest exposure to the atmosphere, so tepid and mawkish, that it is scarcely possible to drink them, and, if drunk, they give no refreshment. During the burning, exhausting heats of June, July, and August, even the Neapolitan lazzarone will turn away loathing (*se non c'è neve*) if there is no snow to cool his draught. But give him a handful of pure sparkling congealed snow to dissolve in his glass, and the poorest wine of a penny a bottle, or plain water, becomes nectar—he drinks joyfully, and is indeed “powerfully refreshed.”

We have spoken of “ices” and “iced water,” because such are the names (in our own case derived from the true material employed, which is ice) in use in England. But in the south of Italy, it is not ice but snow that is employed in all cases. The quantity that is consumed annually, particularly when the summer proves long and unusually hot, is prodigious. In the low country, even in their coldest winters, snow never lies upon the ground; but in the Apennines that run all through the peninsula they have an exhaustless magazine of that precious substance. A few of the loftiest mountains of that great chain,—as *Il gran Sasso d'Italia*, or the Great Rock of Italy, and Monte Majello (both in the Abruzzi),—have snow on their summits all the year round, and even glaciers in some of their deep crevices; but, generally speaking, the snow disappears from the ridges of the Apennines towards the end of May, and were not art and precaution employed it could not be made available to man at the season he most wants it. The Neapolitans, therefore, dig deep wells or caverns high up the mountain's sides, or sometimes make use of natural caves among the rocks. Into these, at the proper season, when they can procure it in broad, thick, purely white layers, they throw the

snow to be preserved. The snow is well pressed together, and, when the chasm is full, or nearly so, they throw in a quantity of straw, dried leaves, and branches of trees, to keep the external air from the snow, and then shut up the mouth of the well or cavern, which is sometimes, though not always, enclosed by a small, rude stone building. These snow-caves are mostly on the northern face of the mountain. By paying proper attention to their exposition and the points of the compass,—by taking advantage of thick trees that, in summer, afford a cool, dense shade, or of a deep, narrow rift in the rocks where the sun never penetrates,—these depôts may be safely placed as low down the mountain as the snow falls and lies. This is an advantage of no mean value, as the labour and expense of carriage are reduced, the material being nearer market and more easily accessible. When the snow does fall in any quantity on the lower and inhabited ridges of the mountains it gives occasion to great joy and festivity among the peasants, who troop from all parts to collect it, and carry it off to a safe snow-cave. The writer of these pages once witnessed a curious and enlivening scene of the sort. He was travelling from Naples towards Apulia, and was crossing the first, or lower ridge of the Apennines, between the towns of *Il Cardinale*, and *Monte Forte*, and *Avellino*, when suddenly a sharp snow-storm came on, which soon covered the ground with a thick white mantle. As soon as the flakes began to fall quickly and compactly, all the country people set up a joyful shout, and presently men, women, and children all ran out with rakes, shovels, baskets, hand-barrows, rush-mats, and every thing available that they could seize at the moment, to collect the falling treasure. The Israelites in the desert could hardly have shown more joyous feelings at the fall of their manna. They sang—they shouted—they laughed—they kept up a constant fire of jokes, not forgetting, however, to gather in the snow all the while. There was none of that pleasant sport which we call snow-balling—the material and their time, on such an occasion, were too precious to be lost or wasted. Balls, to be sure, were made, and of an enormous size; but these the children carefully rolled along the mountain's side to throw into the snow-caves. They were all evidently foretasting the refreshment and delight to be procured from this gift of winter during the scorching heats of summer, and the suffocating airs of the sirocco, not overlooking, in all probability, the gains to be derived from selling their overstock of snow to their neighbours in the hot thirsty plain of the *Terra di Lavoro*. As the travellers went by, the groups of busy peasants, men and boys, shouted out to them “*Ecco, Signori, una bella raccolta! questa è una bella raccolta!*” (Here, sir, is a fine harvest! this is a fine harvest!)

To supply the city of Naples, one of the largest capitals of Europe, which has a population of 400,000 souls—all snow-consumers—a very extensive mountain-range is put in requisition. From the Apennines, and from all the nearer branches and ramifications of those mountains, snow, during the summer months, is constantly being brought into the city by land and by sea—always, however, by sea when practicable, as, by that mode of conveyance, it is kept cleaner, loses less by melting, and costs less for carriage. Hundreds of men and boys are employed exclusively on this business.

A mountain that contributes very materially to the supply of the capital is *Monte Sant' Angelo*, the loftiest point of the bold promontory that separates the Bay of Naples from the Bay of Salerno. This mountain, which towers majestically immediately behind the town and sea-port of *Castellamare*, near the end of the Neapolitan bay, is only about twelve miles from Naples itself. On account of the short distance, and the advantage of an easy water-carriage, the snow is

there harvested with great industry and care, and Monte Sant' Angelo is well provided with such caves and chasms as we have described. Some of these contain singly an immense heap of snow, but prodigious as the quantity may be, it rapidly disappears before the labours of the workmen, who, with iron-spiked poles and shovels, dig into it and break it up much after the fashion of men working in salt-mines. These labours, for a very obvious reason, when, in the day-time, Fahrenheit's thermometer often marks 90° or 100° in the sun, are nearly all performed during the cool of the evening and night. Long strings of mules, each like a little caravan, ascend the mountain to the snow-caves. There they are loaded with the snow broken into large lumps, and secured from the external atmosphere as well as may be, and then, with all the speed that can be managed with heavy burdens, and on steep, precipitous, and, in parts, very dangerous roads, they descend by Quisisana* to Castellamare and the wharfs, where large, roomy boats are in readiness to receive their loads. As soon as the very perishable cargo of one of these boats is completed, and covered over with straw, dry leaves, and tarpauling, it pushes off direct for Naples. The time of their departure is from eleven or twelve o'clock at night to one or two in the morning. They are all furnished with a mast and sails, which may be useful to them on their return; but as there is seldom a breath of wind on a summer's night in this bay, they are of little use in going to Naples, and the sailors are obliged to pull the boats with oars and long sweeps. This labour, from the clumsy, bad construction of the vessels, and the dead weight thrown into them, is excessively severe, particularly when they are delayed, in starting, and threatened with the heat of the rising sun before they can reach the port of Naples. Fire ought to be brought to the aid of snow. A small steam-boat might tow over a line of these vessels without any uncertainty as to time. During the summer nights, at the town of Castellamare, the trampling of the mules from the mountain, the cries and songs of the muleteers, the putting off of the snow-boats, and the shouts of the mariners, the roll of whose heavy oars are heard far across the bay, are scarcely ever interrupted for five minutes at a time.

When the snow-boats arrive in the port of Naples, they are quickly unloaded by a number of facchini, or porters, regularly appointed to that service. These fellows, who are very active and very strong, though their principal food is bread, olives, garlic, and other vegetables, with now and then a good dish of macaroni, run with their loads of snow from the water-side to a large, cool building erected on purpose to receive it. This building, which is called "La Dogana della neve," or the snow custom-house, is situated a little in the rear of the port, at the distance of a few hundred yards from the great Neapolitan custom-house. To this general depôt the retail dealers come to furnish themselves from all parts of the vast town; and there is scarcely a street in Naples, however miserable and remote it may be, but has its snow-shop. By an old law of the country, these shops are never allowed to be shut up during the hot weather, either by night or by day; or if the owner closes the door or absents himself, he must leave some one in the shop ready to serve should snow be called for. A similar regulation, only extending all the year through, applies to apothecaries' shops. With respect to the vendors of physic, the old law is pretty well let go to sleep, but the popular want and habit keep it awake in regard to the snow-dealers. It must be remarked, however, that snow itself is both

* A beautiful royal villa, with a small village near it, on the mountain's side above Castellamare, is so called. The Italian compound, "Qui si sana," being rendered literally, is in English "Here one recovers health."

a medicine and a medicament;—it is taken internally, alone, or mixed with syrups and drugs, and it is used in outward topical applications for head-aches, sprains, and an almost infinite variety of cases. The quantity consumed in this way is very great. Snow, indeed, may be called the best physician and the best surgeon of the poor Neapolitans, who do not often consult any other.

RICHES.

It is the mind that maketh good or ill,
That maketh wretch or happy, rich or poor:
For some, that hath abundance at his will,
Hath not enough, but wants in greater store;
And other, that hath little, asks no more,
But in that little is both rich and wise:
For wisdom is most riches; fools therefore
They are which fortunes do by vows devise;
Since each unto himself his life may fortuneize.

SPENSER.

Board and Lodging of the Esquimaux near Icy Cape.—During the day we visited the village, consisting of tents constructed of a few sticks placed in the ground and meeting at the top, so as to give the dwelling, when covered with hides, a conical form. Those which, as in the present instance, are intended for a high degree of cold, have also a lining of rein-deer skins. A few logs formed the floor, on which the skins for sleeping were spread out. They cook their provisions in the open air in earthen pots, into which they put the blood, ontrails, blubber, and flesh together. Their chief food is the walrus, seal, rein-deer, and fish: and as they procure more in summer than is required for immediate use, the rest is buried in the sand for winter consumption. They very kindly dug up a seal which had evidently been deposited for some time; and one of them offered us a handful of the intestines to eat, but the sight of it was quite sufficient for our appetites. They eat the flesh of the rein-deer in its raw state.—*MS. Journal of a Voyage of Discovery.*

* * We deviate from the plan of not inserting Advertisements (to which we have rigidly adhered, except on one former occasion), for the purpose of announcing the intentions of the Society as to the future publication of *Almanacs* and other *Yearly Manuals*.

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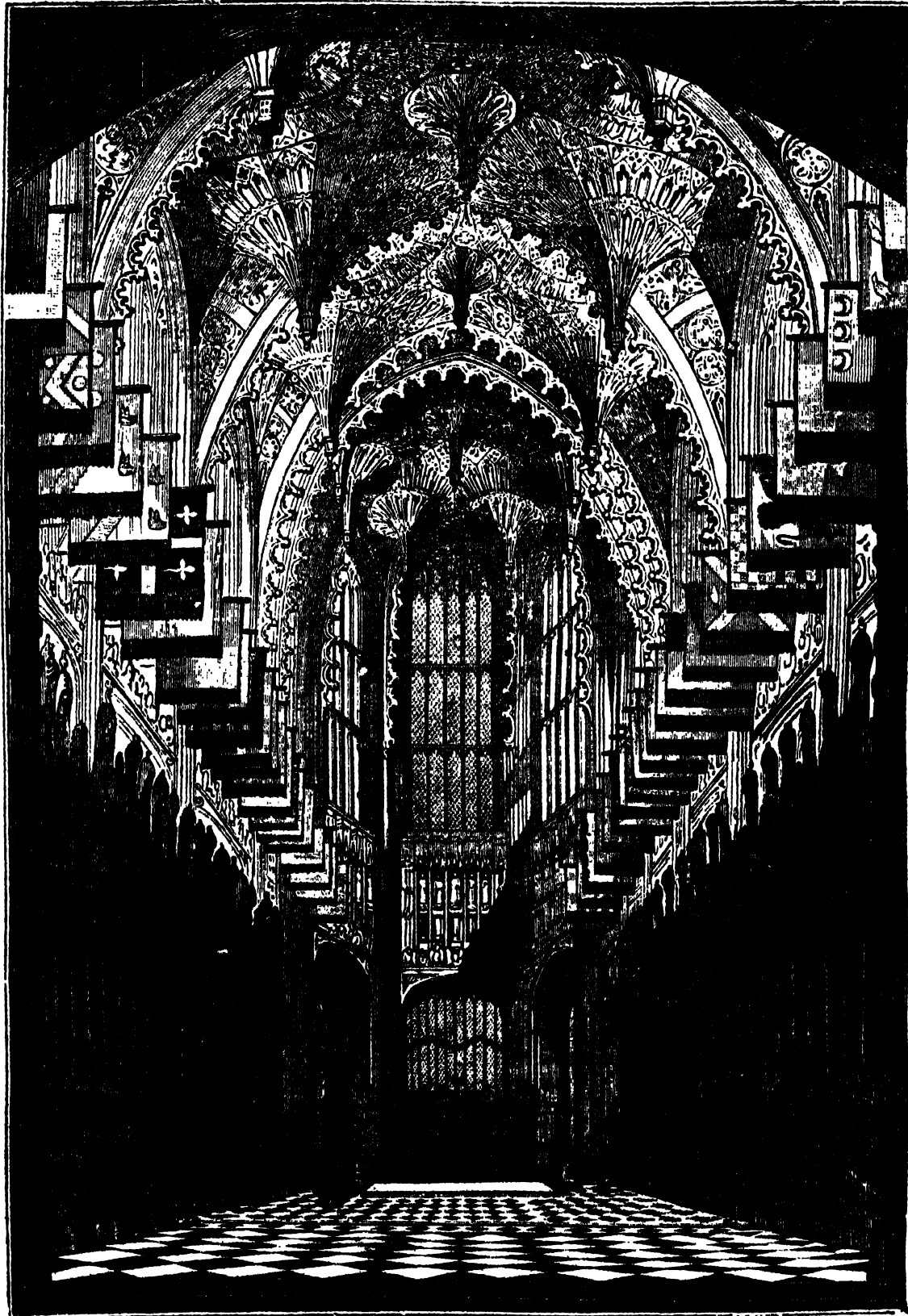
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July 31 to August 31, 1834.

WESTMINSTER ABBEY.—No. II.



[Interior of Henry VII.'s Chapel.]

BEFORE proceeding to the general subject of the history of the Abbey and an account of the monuments it contains, we may remark, with reference to the subject of the preceding engraving, that the Gothic, or pointed, style of architecture attained a very high degree of perfection in England during the fifteenth century. Of this there remain three exquisite specimens—St. George's Chapel, Windsor (see 'Penny Magazine,' No. 80); King's College Chapel, Cambridge; and Henry VII.'s Chapel, Westminster. It may be asked, could the age which produced such truly admirable works of art be so generally deficient in all that characterizes man as a rational creature, and even in a general diffusion of the enjoyments of life? Without entering at all upon either a history of architecture, or a discussion of the merits of the different styles which have prevailed in different times, we may simply remind our readers that the architecture (as well as the learning and religion), not only of England, but of Europe, was then in the hands of a great corporation, which, in spite of all that is chargeable upon it, must have contained much both of intellectual vigour and refined taste.

The general impression produced on entering Henry VII.'s Chapel has already been described. It is difficult to go into detail, and convey in words a distinct idea of the architectural beauties of this certainly rarely equalled and never surpassed specimen of art. In the interior, the eye traces the octagonal buttresses upwards to the vaulting, where the elegantly-pierced flying buttresses, the pendants of solid stone, which appear suspended in air, the meshes of the tracery, curved and intersected as if the artist had moulded his solid materials into the yielding facility of lace-work, graceful even when most grotesque, the niches, with their carved canopies, the dragon, the greyhound, the rose, the fleur-de-lis, sculptured around—"the blaze of rich decoration,"—all combine to attract attention to the different parts, and each excites admiration; while the vast height of the roof creates unfeigned wonder at the profound professional skill which thus counteracted the power of gravity, and after conceiving the bold design, so fully triumphed in its execution. The forms and tracery of the windows, the massive oaken gates, and the tessellated floor, add to the combination of impressive circumstances; nor is the impression, when rightly felt, without its moral value and beneficial result.

There is an obscurity about the identity of the architect of this chapel. It is extremely probable that he was an ecclesiastic; and it has been suggested that it is not unlikely to have been William Bolton, the Prior of St. Bartholomew's, whom Stowe calls "a great builder," and who is expressly termed, in the will of the royal founder, "the master of the works." Let him be who he may, he was undoubtedly a master of his "craft," and has left us a valuable monument of his genius.

Westminster Abbey was endowed with many privileges in ancient times. While Laurence was Abbot in 1136, in the reign of Henry II., he applied to Pope Alexander III. to be allowed to use the mitre, ring, and gloves, the distinguishing marks of episcopal dignity. Laurence died before the papal consent was formally announced, but his successor Walter enjoyed the first-fruits of the ambitious request. This privilege conferred a higher importance afterwards, for mitred abbots came to sit in parliament, as well as bishops, and to enjoy every honour to which bishops, as lords of parliament, were entitled. The last abbot who sat in parliament was John Fackenheim, who was the only ecclesiastic of his rank who appeared in the first parliament of Queen Elizabeth, in 1558, and he took the lowest place on the bishops' bench. One of

the most famous of the abbots was John Islip, who must have been a man of considerable ability and energetic power. To him has been erroneously ascribed the patronage and first introduction of printing, which was introduced before his elevation to the abbacy; but it was during his time that Henry VII.'s Chapel was erected, and under his superintendence it was carried on: Henry, only nine days before he died, having paid into his hands 5000*l.* in "ready money before the honde," for the purpose of completing it.

In the year 1303, the king's treasury, "at that time somewhere within the abbey," was robbed to the amount of 100,000*l.*, which had been laid up for the service of the Scottish wars. The abbot and forty-eight of the monks were in consequence committed to the Tower; and, notwithstanding their protestations of innocence, and request to be tried, twelve of them were kept two years in prison, the depositions against them being such as caused great suspicion of their having been concerned in the robbery. At length, on Lady-day, 1305, the king, who had come to Westminster to return thanks for his triumph over the Scots, gave orders for their discharge; yet Walsingham quaintly remarks, that "the persons so directed to discharge them detained them eight days longer out of pure malice."

On the 20th of March, 1413, Henry IV., who had been some time afflicted with a sort of apoplexy, was seized with his last fit whilst worshipping at the shrine of St. Edward in the abbey church. At this period he was preparing for a voyage to the Holy Land, having recently assumed the cross in consequence of a prediction that he "should die at Jerusalem," which had been made to him in the early part of his life. Whilst still senseless, he was carried into the abbot's house, and on recovering his speech, and seeing himself in a strange place, he asked where he was, and was answered, "In the Jerusalem Chamber." The prophecy immediately recurred to his memory, and, finding his death approaching, he sent for the Prince of Wales, Falstaff's once boon companion, and after giving him some excellent advice in respect of his future government, he recommended himself to the protection of Heaven, and expired in a few moments.

After the decease of Edward IV., the Lords Rivers and Grey, with others of the Queen's kindred, were arrested at Stony Stratford and Northampton, by command of the Duke of Gloucester, afterwards Richard III., as they were conveying the young king from Ludlow to London. This act being communicated to the Queen, who justly suspected the intentions of the Duke, she immediately quitted the palace at Westminster, and took sanctuary in the abbey, together with her youngest son the Duke of York, and the five princesses her daughters. At a subsequent period, when Richard was seated on the throne, he prevailed on the Queen to quit the sanctuary with her daughters, a measure she lived bitterly to regret, for Henry VII. afterwards deprived her of all her lands, and the latter portion of her life was spent in mournful seclusion at Bermondsey Abbey.

Prior to the dissolution of the monasteries, Henry VIII. had resolved to convert some of them into episcopal sees, to be endowed with a portion of the lands or revenues which that dissolution would place at his disposal. Of the projected sees, Westminster was to be one; and on the 17th of December, 1540, the abbey-church was, by letters-patent, constituted a cathedral, with a bishop, a dean, twelve prebendaries, and other inferior officers. The new bishop was Thomas Thirleby, then dean of the Chapel-royal. On the 16th of January, 1539-40, a surrender of the whole establishment, for the purpose of carrying this project into effect, was made by Abbot Benson and twenty-four of the monks. The annual revenue is stated to have been nearly 4000*l.*, a sum of great real value, when the

pound of beef was regulated at one halfpenny, and that of veal and mutton at three farthings. Benson, for his ready compliance with Henry's wishes, was appointed dean of the new cathedral; certain monks became prebendaries, minor canons, and students in the university; the others were dismissed with pensions, decreasing from ten pounds down to five marks. The abbatial mansion was converted into a palace for the bishop, whose annual revenue is variously stated from six hundred to eight hundred pounds. The diocese included the whole county of Middlesex, with the exception of Fulham, the rural residence of the bishops of London. The endowment of the dean and chapter was not completed till the 5th of August, 1542, when lands in various parts of the kingdom were assigned, of the yearly value of 2598*l.*; out of which, however, the sum of 400*l.* was to be paid, for the salaries of five professors of divinity, law, physic, Hebrew, and Greek, in each of the universities. A further sum of 166*l.* 13*s.* 4*d.* was to support twenty students in the universities; and two masters, with forty grammar scholars, were to be maintained in the school of Westminster. The new bishopric was, however, but of short duration; for on the 29th of March, 1550, Bishop Thirleby was required to surrender it to Edward VI., and it was soon afterwards united to that of London. Part of the possessions of St. Peter's Cathedral (our readers will remember that this is the collegiate title of Westminster Abbey) were appropriated to the repairs of St. Paul's Cathedral, whence arose the proverb of "robbing Peter to pay Paul." In the edict for suppressing the see of Westminster, no mention was made of the establishment of a dean and prebendaries, and it became, consequently, a question whether they were to be continued. To remove all doubt on this head, an act passed in parliament, declaring the church still to remain a cathedral, with the former establishment, but within the diocese of London. On the accession of Mary to the throne, the restoration of the monastery to its pristine condition was carried into effect. But on the 21st of May, 1560, the monks were again displaced, and the church again rendered collegiate by Elizabeth, on a basis very similar to that established by Henry VIII. Since the reign of Elizabeth, if we exclude the general disorganization of similar institutions, in consequence of the internal disorders which commenced in the time of Charles I., the collegiate establishment of the abbey has undergone no material alteration.

Dr. Ryves, the author of '*Mercurius Rusticus*,' and afterwards Dean of Windsor, has inserted in his work some particulars of wanton and even atrocious dilapidation, which it is to be hoped are exaggerated. He says that in 1643, in the month of July, some soldiers of the parliamentary army, quartered in the abbey-church, broke the rail about the altar, burnt it, pulled down the organ, pawned the pipes at several alehouses, ate, drank, and smoked tobacco round the communion table, and committed various beastly atrocities! Yet it is certain the abbey suffered considerably during the interregnum from the iconoclastic fury of the republicans. We know no better corrective of this base and brutal spirit than a familiar acquaintance with the history, uses, and objects of works of art. Ignorance has no halting point between blind yet reverent superstition, and dilapidating fury. Enlighten the minds of the great masses of society, and by a reflex influence let their taste be improved;—and while we shall not behold them kneeling down in abject veneration and humbling fear, neither shall we be pained by exhibitions of barbaric mutilation and coarse and senseless spoliation. The chapel of Henry VII. was of course exposed to similar disasters. Even in more settled and better times (if we except the examination and report of Sir Christopher Wren) there does not appear to have been

a great deal of thought bestowed upon it; for in 1803, Dean Vincent presented a memorial to the Lords of the Treasury, setting forth that the lapse of centuries had so decayed the stone as not only to present a ruinous exterior, but actually to endanger the safety of the edifice. Ultimately, the House of Commons voted various sums in different years for the restoration of the chapel, which was commenced in 1809, under the superintendence of the late James Wyatt, Esq., and completed in 1822; the total amount of the grants for the purpose being upwards of 42,000*l.* The repairs have been entirely executed with Bath stone, and the building is now therefore likely to be preserved for many ages.

In walking round the Abbey, and surveying the monuments and tombs, the spectator will be struck with the similarity which obtains in nearly all the ancient remains. The posture is recumbent, the figures are formal and stiff, and one tomb appears to be but a copy of the other. As we descend to later periods, we find the art improving,—the tombs and monuments assume the form of temples, or are arched with canopies,—the figures are more graceful and expressive, and emblematic and other ornaments are numerous. After the Reformation there is a retrograde movement; but lower down again, after the Restoration, we come to the revival of statuary and sculpture, when men of genius began to feel it their interest to devote their lives to their profession, and to produce elaborate works of art. And this brings us to our own times, when the art of sculpture appears to be rising to rival the far-famed efforts of the Grecian school, and to imbue marble with expressive life. We shall attempt briefly to connect the different periods.

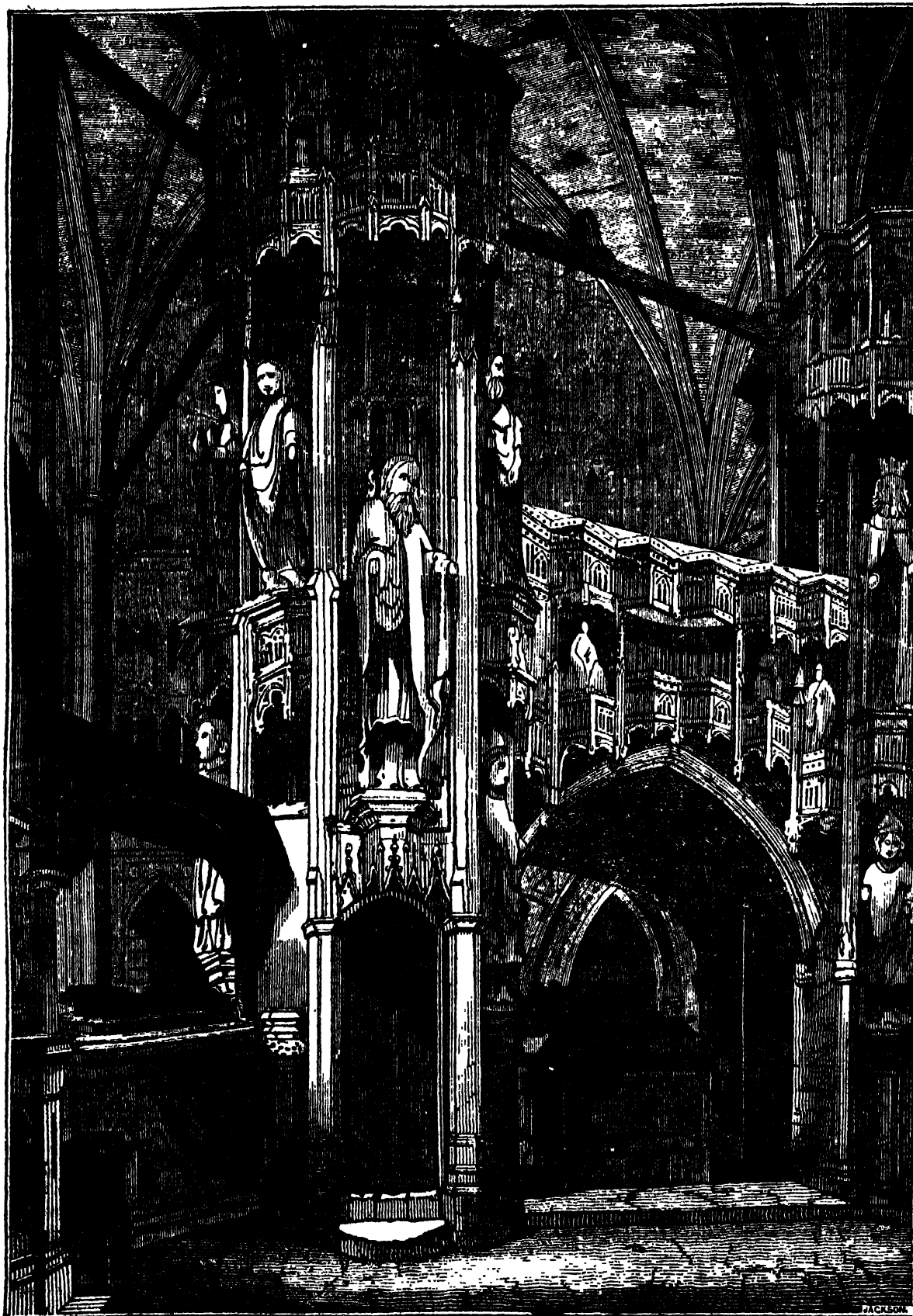
Passing over the rude figures of abbots in the cloisters, coeval with the time of William of Normandy, we come to St. Edward's Chapel, which is full of very ancient remains. The shrine, or tomb of King Edward, stands nearly in the middle of his Chapel. The original work, though greatly dilapidated, must be regarded as a curious vestige of antiquity; but all the wooden superstructure is of a much later date, and in a different style of composition. Edward died on the 5th of January, 1065-6, and he was interred on the 12th of that month before the high altar. Among the miracles attributed to King Edward, even in his life-time, was that of curing the glandular swellings in the neck, since called the *king's evil*; and, after his interment, many extraordinary cures were reputed to have been wrought at his tomb in every description of disease and infirmity. Pope Alexander III. canonized him, enjoining, by his bull to the Abbot and Convent of Westminster, "that the body of the glorious king should be honoured here on earth, as he himself was glorified in heaven." The shrine was erected by Henry III., and the remains of the Confessor were translated to it with great pomp and splendour; and Matthew of Westminster gravely tells us that two persons possessed of devils, who had come purposely, one from Ireland, the other from Winchester, were relieved.

The anniversary of the translation was observed for three centuries with great solemnity and pomp, and many rich offerings were made by different monarchs at the altar which had been erected at the west end of the shrine. Yet the same Henry III., who founded and enriched it, set the example of making free with its riches: for he at one time obtained leave of the abbot and monks to pawn the jewels of the shrine for necessities of the state!

In the same chapel, a huge, shapeless, rough coffin, composed of five large slabs of Purbeck marble, contains the body of Edward I., remarkable as having been opened in 1774, by a deputation from the Society

of Antiquaries, when the body was found in a state of complete preservation, having on two robes, one of gold and silver tissue, the other of crimson velvet; a sceptre in each hand, a crown on his head, and many jewels, quite bright. He measured six feet two inches. It is to be regretted that, on this memorable occasion, no sketch was taken of the singular scene.

The style of workmanship and materials of the lofty and still magnificent tomb of Henry III. are similar to those of St. Edward's shrine. The statue of King Henry, which lies upon the tomb, is said, by Walpole, to have been the first that was ever cast in this kingdom, but he gives no authority for his assertion; and the performance has been justly criticised as ex-



hibiting a more studied expression of simple dignity than could well have resulted from a first attempt. It is not improbable, however, that Pietro Cavallini, who executed the tomb, might also have given the design, and superintended the casting of the figure, in which latter case the presumed contradiction would be adequately explained. Both the statue and the brass table beneath it are richly gilt, but the thick coat of indurated dust conceals the gilding. The king is arrayed in a long mantle, reaching to the feet. There is a fine simplicity in the folds of the drapery. Cavallini is supposed to have accompanied Abbot Ware to England, on his return from either his first or second visit to Rome.

The beautiful monument of Queen Eleanor, whose conjugal virtues tradition has so pleasingly recorded, is constructed with grey Petworth marble, covered with a table of gilt copper, on which is the recumbent statue of the queen. It is a very admirable performance; the peculiar sweetness and beauty imparted to the countenance cannot easily be excelled.

"The screen," says the writer in 'Neale's Westminster,' "which extends across this chapel on the west, is one of the most remarkable specimens of ancient art that now remains; and although woefully dilapidated, it is still exceedingly interesting and curious. The damage it has sustained appears to have arisen far more from wanton devastation than from the wear of ages. It must excite some surprise, indeed, that the sculptures of the screen escaped during the Commonwealth.

"This elaborate performance is constructed in the pointed style of architecture; and, independently of its highly-enriched niches and architraves, it possesses a sculptured frieze on which the principal events, both real and imaginary, of Edward the Confessor's life, are represented in alto-relievos. These are displayed in fourteen compartments, separated from each other by an equal number of irregularly-shaped quatrefoils. The designs for these singular sculptures have been chiefly deduced from Ailred's account of the Life and Miracles of King Edward, which was written in the time of Henry III., and presented to that monarch by Abbot Laurence on the very day (anno 1163) when, in honour of his recent canonization, the Confessor's remains were removed into a new shrine. All the sculptures are highly relieved, from the frieze, having been hollowed out into a deep concave behind them. The general height of the principal figures is about one foot. The surmounting cornice has been very richly decorated with a running pattern of perforated foliage (now greatly broken), representing strawberry-leaves. The design of the lower part of the screen is extremely elegant, and the variety of delicate lace-work tracery which it exhibits can hardly be paralleled."

The few writers who have attempted to determine the age of this screen have assigned it to periods extremely remote from each other. It is probably of the fourteenth century.

"Over the arched recess occupied by the tomb of Henry V. is a large and elegant chantry. This is entered by two staircases within octagonal towers, ornamented with statues and pierced tracery. On a wooden bar that extends between the entrance-towers is the casque or helmet which Henry wore at the battle of Agincourt, and fastened against the large columns at the sides are his shield and war-saddle. Several models of buildings and monuments are preserved here; among them is that designed by Sir Christopher Wren for erecting a lofty spire on the central tower of this church."

The statues of the early part of the first period of English sculpture are mostly, if not all, composed

• Britton

of coarse and perishable stone, and are consequently many of them decayed and defaced. The stiff uniformity which pervades them all—knights in armour and ladies in bodices—presents nothing on which particularly to dwell. The second period indicates improvement; for though the slavish custom still prevailed of placing the figures on their backs,—a posture at once rigid and ungraceful,—yet as a better light dawned upon the artists, they struggled with their difficulties, and a perceptible difference is discernible in the repose of the countenances, the folds of the drapery, and the surrounding ornaments. It is to the latter part of this period that the superb monument of Henry VII. belongs. Sculpture and architecture appear to have been advancing together, and there is, accordingly, a uniformity between the chapel and the tomb. Its sculptor was Pietro Torregiano, a singular man, who flourished at the dawn of the great revival of art in the fifteenth century. He was a Florentine, and a fellow-student with Michael Angelo; and it is said that in a dispute respecting comparative proficiency, he struck the great artist a blow which broke the bridge of his nose, and left a mark never eradicated. In the zenith of his reputation he came to England, and amongst other works engaged, under special contract, to execute this tomb,—a work by which he is now almost exclusively known. It is further recorded of him that, passing into Spain, he fell into the hands of the Inquisition, being denounced as guilty of impiety and sacrilege in breaking an image of the Virgin Mary, which he himself had made for a Hidalgo, who afterwards refused to pay him his price; and that he escaped the *auto-de-fé* by starving himself to death!

The pedestal of the tomb is of black marble, but the figures, pilasters, relievos, rose-branches, &c., which adorn it, as directed by King Henry's will, are all of gilt copper. The figures of the monarch and his queen, designed in a style of great simplicity, lie upon the tomb with their hands raised in attitude of prayer. There is an extremely natural expression in the countenances of the royal pair. On the angles are little angels seated, and at the ends are the royal arms and quarterings, while on each side, boldly sculptured, are wreaths of fruit and flowers, inclosing circular plates of cast metal, in which are small whole-length figures of the king's patron saints, termed in the will his "avoures." The entire execution indicates not only a highly improved state of art, as compared with the monuments both of times immediately preceding and subsequent, but is a work of genius worthy of a comparison with any in the Abbey. But we have a more decided proof of the improved state of art in England at that time, in the screen or "closure" which surrounds the tomb, than in the tomb itself,—the one being the work of a talented foreigner, the other the production of English artists. The screen is a most elaborate work of art, and a very fine specimen of what is technically termed "founding in open work." It is of brass and copper, designed in the pointed style of decoration, and is of an oblong form. At each angle rises an octagonal tower, and on each side there is an arched doorway, surmounted by a large rose and a shield of arms. A projecting cornice and a parapet, ornamented with the king's badges, form the summit; and at the sides, on the transverse plates, between the two divisions into which the upright compartments are separated, is a long inscription to the memory of the monarch. Of the statues which adorned this screen, there are now only four remaining.

The monuments subsequent to this period plainly intimate a falling off in art. The one to the memory of Queen Elizabeth, erected by James I., though lofty and magnificent, has been rendered meretricious by painting and gilding; that of Elizabeth's rival and

victim, Mary of Scotland, is better, and the figure in white marble is more delicate. The artists (or fashion) still adhered to the recumbent position; but the advance which had been gained in quietness of expression and variety in the flowing folds of the drapery, by the artists of the preceding reigns, was lost, and vainly attempted to be compensated by the introduction of numerous surrounding figures, either kneeling at prayer or recumbent. The monument erected by the great Lord Burleigh to the memory of Mildred his wife, and their daughter Lady Ann, Countess of Oxford, though very costly, is rendered ineffective by being gilt and painted. The tomb of King James's "Burleigh" is plainer, and the figures are in a purer style, though of course stretched out in the all-prevailing and unmeaning posture. His first wife is laid on his right side, and a vacant space is left for his second, Frances Bridget, who was of the noble house of Chandos; but she, with the pride of family, refused to allow her statue to occupy the left, and the space is still vacant. The monument of Sir Henry Norris, created Lord Norris by Queen Elizabeth, is also somewhat of an exception, and there are one or two others which deserve likewise to be qualifyingly excepted, as displaying an appearance of nature in the figures: but all the monuments of this period may be generally dismissed, as exhibiting a degree of magnificence without simplicity, and effort without taste. Nicholas Stone, however, flourished during this period;—an artist of considerable merit and ingenuity. And somewhat later, during the era of the Interregnum, when public opinion and public fury were strongly directed against every work of art that savoured in the slightest degree of popish propensities, there was erected at least one monument in this Abbey which distinctly proves that sculpture was not altogether extinct: it is to the memory of Colonel Edward Popham, an officer in Oliver Cromwell's army, and his lady, whose statues, in white marble, as large as life, stand under a lofty canopy, resting their arms, in a thoughtful posture, upon a marble altar. It is very well executed.

After the Restoration we find that Cibber, Bushnell, and Grinling Gibbons, were conspicuous in calling the attention of the British public to the neglected art of statuary. But the monuments of this reviving period partake of the affected and pedantic character of the time, and gods and goddesses, personifications of virtues, and other allegorized conceits, are very abundant.

Roubilliac, Rysbrach, and Scheemakers, French and Flemish artists, succeeded; and the abbey is enriched with many of their productions. Roubilliac was undoubtedly a man of genius, and his monument to Lady Nightingale in the Abbey has been very generally admired. It consists of three figures, the lady expiring by her husband's side, while he, with a look of horror, alarm, and astonishment, is springing forward to intercept the dart of death, aimed by a skeleton emerging from below, and enveloped in drapery. Nothing, indeed, can be finer than the expression on the countenance of the male figure—it is perfect. But though the celebrated anatomist, John Hunter, pronounced the figure of the skeleton to be a faultless representation, yet there is something in the subject itself which fails of that effective power which one might naturally expect from it. The artist was aware of the incongruity of giving a visible form to a metaphysical idea; and the drapery from which the skeleton seems suddenly to start is well conceived and adjusted. That "there is but a step between the sublime and the ridiculous" has high modern authority; and in this instance it is verified. In spite of the exquisite sculpture, the ordinary spectator is balanced between an inclination to smile and a disposition to admire—perhaps the skeleton is

rather puny, though it is in proportion to the other figures. The idea, however, is not new. Roubilliac himself, incited by his success in this figure, has introduced skeletons in other monuments. Pigalle, a fellow-countryman and contemporary of Roubilliac, has also introduced a skeleton, intended to represent Death, which is likewise enveloped in drapery, in his monument to Marshal Saxe, in the church of St. Thomas at Strasburg.

Thomas Banks, who has a tablet erected to his memory in the Abbey, has left a fine specimen of his abilities in the monument to Sir Eyre Coote. It consists of two figures, as large as life,—one a Mahratta captive, the other a Victory. The Mahratta figure is an admirable production of art—the chissel has given life to stone. The colossal monument to the great Earl of Chatham, by John Bacon, is magnificent;—its very magnificence alone would recommend it, had it no other merit. General Wolfe's is also worthy of record, as is Sir Isaac Newton's, Handel's, and a host of others, which it would be useless and absurd to specify in an article such as this. We mention them for the purpose of showing the rapid strides which the art of sculpture took in the latter part of the last century. Though still encumbered with conceits, and revelling in allegories,—in the production of which the imagination was racked to devise new forms, in which earth, ocean, fame, the virtues, Britannia, and other emblematic designs, might be pressed into service,—still there was a high degree of talent manifested, the displays of which will command the respect and admiration of all who have the slightest pretensions to appreciate and enjoy the efforts and the triumphs of art.

We now reach our own times, in which it may be safely asserted that statuary has arrived at the highest perfection which the annals of the Abbey can exhibit. Flaxman's monument to Lord Mansfield is one of the noblest which England can boast. The Earl, in his judicial robes, is seated in a curule chair, placed on a lofty pedestal. On each side are figures of Justice and Wisdom, while behind is a figure of Death, as represented by the ancients—a youth leaning on an extinguished torch. The monument is judiciously placed between pillars, so as to enable the spectator to walk round it. Adjoining it is a sumptuous cenotaph, to the memory of Captain Lord Manners and two others, by Nollekens—the correct and accurate Nollekens—whose busts perpetuate the features of a host of Britain's best and brightest worthies. We mentioned in the preceding article that the monuments to Pitt and Fox were amongst the productions of Westmacott, and we now only add the name of Chantry. This truly admirable sculptor seems to aim at uniting, in a single statue, all that inferior artists labour to express in a multiplicity of figures and of ornament. Stern majesty and solemn grace beam from the productions of his chissel;—he requires neither conceit nor allegory to enable him to reach the perfection of his "craft." The statue of Francis Horner, who closed his short but useful life in 1817,—the majestic one of Watt, and the one just erected to Canning, which is characterized by the highest efforts of his genius, are alone sufficient to place him in the first rank of his profession.

We have not mentioned the south transept of the Abbey, so well known as "Poets' Corner," as the monuments are more indebted for their interest to the names they bear, than to the art of the sculptor. Here Geoffrey Chaucer, the father of English poetry, has his memorial—though now much defaced; Milton, whose mind pierced into the "region of invisibles;" Shakspeare, whose empire was man; Butler, the quaint and witty; "rare Ben Jonson," Dryden, Cowley, Phillips, Spenser, Prior, Thomson, Rowe, Gay, Goldsmith, Addison, and Watts, with Handel and Garrick. Many illustrious

names are, however, wanting:—Pope, whose muse contributed to the monuments of others, has no memorial here; and we want Walter Scott by the side of William Shakspeare. The great Duke of Argyle, immortalized by Scott in the 'Heart of Mid-Lothian'; Isaac Barrow, the father of English divinity; Isaac Casaubon, the profound scholar and learned critic, who found a shelter in England; William Camden, the antiquarian; Granville Sharpe, the friend of man and of the negro race, have also memorials here. Washington Irving, in his 'Sketch Book,' says of this spot:—"I passed some time in Poets' Corner which occupies an end of one of the transepts, or cross aisles, of the abbey. The monuments are generally simple, for the lives of literary men afford no striking themes for the sculptor. Shakspeare and Addison have statues erected to their memories; but the greater part have busts, medallions, and sometimes mere inscriptions. Notwithstanding the simplicity of these memorials, I have always observed that the visitors to the abbey remain longest about them. A kinder and fonder feeling takes place of that cold curiosity or vague admiration with which they gaze on the splendid monuments of the great and the heroic. They linger about these as about the tombs of friends and companions; for indeed there is something of companionship between the author and the reader. Other men are known to posterity only through the medium of history, which is continually growing faint and obscure; but the intercourse between the author and his fellow-men is ever new, active, and immediate: he has lived for them more than for himself; he has sacrificed surrounding enjoyments, and shut himself out from the delights of social life, that he might the more immediately commune with distant minds and distant ages. Well may the world cherish his renown; for it has been purchased, not by deeds of violence and blood, but by the diligent dispensation of pleasure. Well may posterity be grateful to his memory; for he has left it an inheritance, not of empty names and sounding actions, but whole treasures of wisdom, bright gems of thought, and golden veins of language."

The cloisters of the Abbey are on the south side of the church, and remain nearly entire. In them are the monuments of some of the earlier abbots, and adjoining them is Westminster School. To the north-west once stood the Sanctuary, where many a daring criminal was sheltered, and several royal persons took refuge, during the disastrous civil wars of England. Westward of the Abbey was the Almonry (the Ambury, as it is now vulgarly called, degraded as it is into a street of the most squalid and wretched description), where Caxton printed 'The Game and Play of the Chesse,' the first book he printed in this country, and, if not the first in England, amongst the very first; the house is yet standing. The old father of printing himself is not buried, as he ought to have been, in the Abbey; he lies in the adjoining church of St. Margaret's, where the Roxburgh Club have erected a neat and appropriate monument to his memory.

In this hasty manner we have run over a period of about five hundred years, and of which Westminster Abbey contains monuments appertaining to every generation. The admirer of the art of sculpture has here as ample a field as the moralist in which to enjoy his peculiar taste. Upwards of four hundred monuments to characters more or less illustrious, besides a vast number of tablets and tombs, fill the place, which is still accumulating its treasures. We could have wished that a rigid spirit had all along presided over the admission of these memorials of the dead—that the Abbey had become a truly sacred enclosure, regulated by higher principles than financial ones—and that the privilege of being numbered amongst the illustrious dead was not mea-

sured by the ability to pay the fees. Of the 6000*l.* voted by the nation to Bacon for the monument to Earl Chatham, 700*l.* were appropriated by the Chapter as the fees of admission! What a mockery is it that the monument of Newton should be associated with that of the "carver in ordinary" of Charles II.,—that a murdered rake, whose merit was his money, and his fate the singularity of being shot in his own chariot, on a Sunday, in Pall-Mall, should claim the attention, and divide the interest, with Perceval, slain in the lobby of the House of Commons;—that a child of a gentleman of the royal bedchamber should fill a space which might have been occupied by one grown grey in the service of the human race! In our opinion, Westminster Abbey should be peculiarly a privileged place—the sanctuary of valour—of genius—of rank illustrious in the service of its country—of beauty and virtue conspicuous in their influence on society. Addison, in his beautiful remarks on the subject, observes that, "when he meets with the grief of parents upon a tombstone, his heart melts with compassion; and when he sees the tombs of parents themselves, he considers the vanity of grieving for those whom we must quickly follow." But this is a general way of moralising, applicable to any dormitory of the dead. Westminster Abbey should be exempted as being the resting homestead of all who have risen to eminence in active life, and by their station, character, or genius, shed an influence on the world.

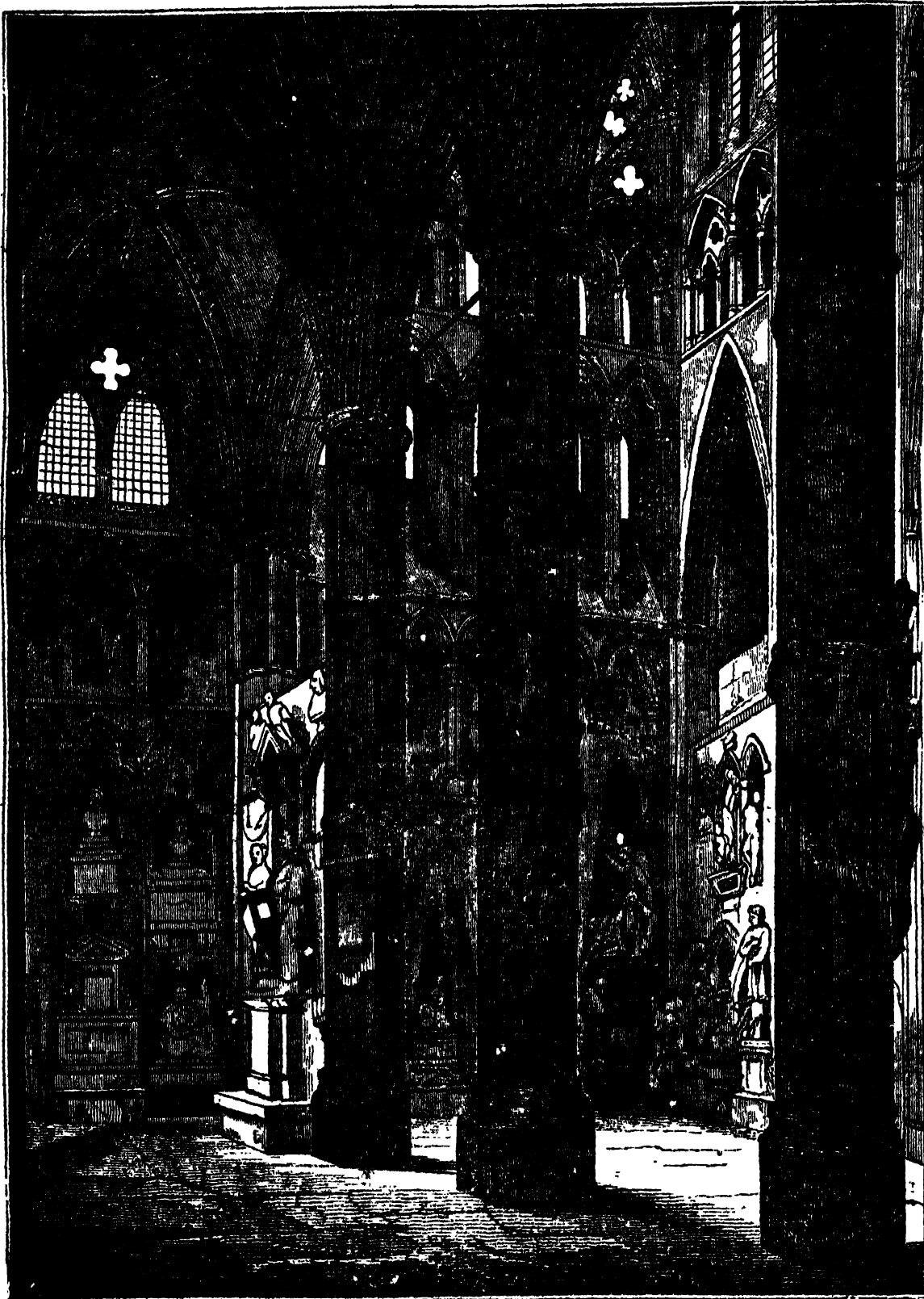
We have already quoted from the admirable paper of Washington Irving on Westminster Abbey, and cannot do better than conclude this article with his closing reflections.

"I endeavoured to form some arrangement in my mind of the objects I had been contemplating, but found they were already falling into indistinctness and confusion. Names, inscriptions, trophies, had all become confounded in my recollection, though I had scarcely taken my foot off the threshold. What, thought I, is this vast assemblage of sepulchres but a treasury of humiliation; a huge pile of reiterated homilies on the emptiness of renown, and the certainty of oblivion! It is indeed the empire of death;—his great shadowy palace, where he sits in state mocking at the relics of human glory, and spreading dust and forgetfulness on the monuments of princes. How idle a boast, after all, is the immortality of a name! Time is ever silently turning over his pages; we are too much engrossed by the story of the present to think of the characters and anecdotes that gave interest to the past, and each age is a volume thrown aside to be speedily forgotten. The idol of to-day pushes the hero of yesterday out of our recollection, and will in turn be supplanted by his successor of to-morrow. 'Our fathers,' says Sir Thomas Brown, 'find their graves in our short memories, and sadly tell us how we may be buried in our survivors.' History fades into fable;—fact becomes clouded with doubt and controversy; the inscription moulders from the tablet;—the statue falls from the pedestal. Columns, arches, pyramids, what are they but heaps of sand; and their epitaphs but characters written in the dust! What is the security of a tomb, or the perpetuity of an embalment? The remains of Alexander the Great have been scattered to the wind, and his empty sarcophagus is now the mere curiosity of a museum. 'The Egyptian mummies which Cambyses or time hath spared, avarice now consumeth; Mizraim cures wounds, and Pharaoh is sold for balsams*.'

"What then is to ensure this pile which now towers above me from sharing the fate of mightier mausoleums? The time must come when its gilded vaults, which now spring so loftily, shall lie in rubbish beneath the feet; when, instead of the sound of melody and praise, the wind shall whistle through the broken arches, and the

* Sir Thomas Brown.

owl hoot from the shattered tower ;—when the garish sunbeam shall break into these gloomy mansions of death ; and the ivy twine round the fallen column, and the fox-glove hang its blossoms about the nameless urn, as if in mockery of the dead. Thus man passes away ; his name perishes from record and recollection ; his history is as a tale that is told, and his very monument becomes a ruin."



[Post's Corner.]

* * The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields,
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MERINO SHEEP.



[Merino Sheep, Male and Female.]

"MERINO" is the name of a Spanish breed or variety of sheep, which affords a wool esteemed to be finer than that which any other European breed produces. The appearance which the merino exhibits will be seen from our wood-cut. In this breed the males have horns, but the females are without them. They have generally white faces and legs. The body does not seem very perfect in shape; the legs are long, the bones small; and under the throat the skin is somewhat pendulous and loose. The skin of the animal is fine and clear. When they are somewhat fat, the weight, per quarter, of the ram is about seventeen pounds, and of the ewe about eleven pounds.

The sheep of Spain are divided into two principal sorts: the common sheep, which continue on the grounds of their owners, and are housed in winter; and the merinos, which always remain in the open air, travelling before the summer to the cool mountains, and returning before the winter to the warm plains. The stationary sheep chiefly belong to the eastern provinces of Spain; while the merinos belong to the central and western parts,—the Castiles, Leon, and Estremadura. In summer they resort chiefly to the plains of the latter provinces, and in winter to the mountainous parts of Castile, which form the most elevated part of Spain, and abound in aromatic plants and fine pastures. Different accounts are given of the origin of this practice; but we have no distinct knowledge of the existence of travelling flocks in Spain until the time when the

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Christians began to prevail against the Mohammedans in the thirteenth century, and came down from the mountains of the north into the provinces of the centre and the south. After that time, however, the system of migration became well and firmly established; and before the Moorish kingdom of Granada had been finally reduced in the fifteenth century, the system had been organized, under the authority of the government, in nearly its present form. This we shall now proceed to describe, taking Laborde, a statistical writer on Spain, as our principal guide in the description.

There is an institution peculiar to Spain called the *Mesta*. It is a society of noblemen and other great proprietors, to whom the migratory sheep belong; who are empowered to make regulations concerning the migrations of the flocks; and who, in fact, are a great co-operative body of capitalists. Unfortunately they possess powers and privileges much at variance with the interests of the people. The term *mesta* is also applied to the great body of the migratory sheep in general; while the particular flocks are called *merinos* and *transhumantes*.

These flocks, when assembled for migration, generally consist of about ten thousand sheep. Every flock is conducted by an officer called a *mayoral*, whose business it is to superintend the shepherds and direct the route: he is generally an active man, well acquainted with the kinds of pasturage, the nature of sheep, and the method of treatment. Under him there

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are commonly about fifty shepherds, each of whom is allowed to keep a few sheep or goats of his own in the flock, on the understanding, that although they and any young they may produce are his property, the wool and the hair belong to the proprietor of the flock. The number of persons thus employed in the care of the whole of the flocks that compose the *Mesta* are about forty-five or fifty thousand. The dogs are also very numerous, fifty being the number commonly allowed to each flock.

It is at the latter end of April, or the beginning of May, that the flocks leave the plains for the mountains. When they have been driven to the place where they are to remain, the shepherds give them as much salt as they are willing to lick; and the quantity of this article allowed for their consumption during the five summer months is one ton for every thousand sheep. At the end of July the rams are permitted to associate with the ewes, but before and after that time they are kept separate. In September the backs and loins of the sheep are rubbed with red ochre dissolved in water; and towards the end of the same month they recommence their march to the plains of Leon, Estremadura, and Andalusia. The sheep are generally conducted to the same ground which they had grazed the preceding year, and where most of the lambs were born. Here folds are constructed for the sheep, and huts of branches for the shepherds; and there they remain during the winter. The birth of the lambs takes place shortly after the arrival of the flocks in winter quarters; and particular attention is paid to prepare them by good diet for the journey in April. In March the shepherds have much to do with the lambs: they cut the tails, mark the nose with a hot iron, and saw off the points of the horns. When the time approaches for the flocks to depart for the mountains, they indicate their desire to migrate by their restlessness, and by their endeavours to escape. The shearing takes place in the month of May, during the summer journey. This business is introduced with much of preparation and ceremony, and the intervals of the labour are cheered by a great deal of jollity and merry-making. The shearing is performed under cover. The animals are previously put into a building consisting of two apartments, from four to eight hundred paces long and one hundred wide. As many of the sheep as are to be sheared the following day are taken in the evening into a narrow, long, low hut, called the *sweating-house*, where, being much crowded together, they perspire freely, which renders the wool softer and more easy to be cut. This is one of the practices the Spaniards appear to have derived from the Romans. One hundred and twenty-five men are usually employed for shearing a thousand ewes, and two hundred for a thousand wethers. Each sheep affords four kinds of wool, more or less fine according to the parts of the animal whence it is taken. The rams yield more wool than the ewes, but not of so fine a quality; three rams or five ewes afford twenty-five pounds. The wool is sorted and washed before being sent away. The sheep that have been sheared are carried to another place and marked; and those which, in the course of the individual inspection they undergo on this occasion, are found to have lost their teeth, are set apart to be killed for mutton.

The journey which the flocks make in their migration is regulated by particular laws and immemorial customs. The sheep pass unmolested over the pastures belonging to the villages and the commons which lie in their road, and have a right to feed on them. They are not, however, allowed to pass over cultivated lands, but the proprietors of such lands are obliged to leave for them a path of about eighty-four yards in breadth. When they traverse the commonable pastures, they seldom travel more than six miles a day; but when they walk

in close order through the cultivated fields, they often proceed upwards of eighteen miles, and they have sometimes been known to go twenty-five or thirty miles in one day, in order to reach a convenient place for halting. The whole of their journey is usually an extent of from 360 to 420 miles, which they perform in thirty or thirty-five days. Popular opinion in Spain attributes the superiority of the wool in the merino to these periodical migrations; but this appears to be disproved by the fact that the wool of the stationary sheep is sometimes equally good, and still more by the very great superiority of the wool of the German merino, which does not migrate at all. The number of the migratory sheep in Spain is at present estimated at 10,000,000, and of the stationary at 8,000,000.

The existence of the system which we have been describing is considered to constitute a great bar to agricultural improvement in Spain. The *Mesta*, of which we have already spoken, has a code of peculiar laws, administered by four judges, whose jurisdiction extends to all matters that are in any degree connected with the *Mesta*, and who take particular care that none of its privileges shall be infringed. Among the evils which the system produces, it is complained that the forty or fifty thousand persons employed in attending the sheep are lost to the state, as to the purposes of agriculture and population, as they scarcely ever marry;—that a vast quantity of good land is converted into pasturage, and produces comparatively nothing;—that great damage is committed with impunity to the cultivated lands during the journeys of the flocks—and this is so much the more injurious as, at the time of the first journey, the corn is considerably advanced in its growth, and at the second, the vines are loaded with grapes;—that the commonable pastures also are so completely devastated by the migratory flocks, that the sheep of the resident population can hardly pick up a subsistence;—and that the flocks of the *Mesta* are of no use in an agricultural point of view, for, as they are never folded upon arable land, they contribute nothing to its fertilization. Besides this, the directors and shepherds are dreaded in every place to which they come, for they exercise a most intolerable despotism,—the consequence of the improper privilege which they possess of bringing whoever they may choose to insult before the tribunal of the *Mesta*, whose decisions are almost invariably in favour of its servants. The existence of the *Mesta* has therefore long been a subject of public complaint and remonstrance, and even the general states of the realm have been continually requesting the suppression of it. For a long series of years these appeals were made in vain, but about the middle of the last century the government felt itself obliged to pay some attention to the subject. A committee of inquiry was therefore appointed to take the matter into consideration, but the influence of the *Mesta* prevailed in the committee and elsewhere; so that though the commission is still, we believe, understood to exist, it has not yet given its opinion on the subject of the *Mesta* or proposed any remedy for the evils it produces.

“The Merino, or Spanish breed of sheep, was introduced into this country about the close of last century. George III. was a great patron of this breed, which was, for several years, a very great favourite. But it has been ascertained that, though the fleece does not much degenerate here, the carcass, which is naturally ill-formed, and affords comparatively little weight of meat, does not improve; and as the farmer, in the kind of sheep which he keeps, must look not only to the produce of the wool, but also to the butcher-market, he has found it his interest to return to the native breeds of his own country and abandon the Spanish sheep. They have, however, been of considerable service to the flocks

of England, having been judiciously crossed with the South Down, Ryeland, &c.* The merino was introduced into most of the other countries of Europe, in the course of the last century, with very various success. It has also at later periods been carried out to New South Wales, Van Diemen's Land, the Cape of Good Hope, and the United States; and it seems now to have been sufficiently established that, wherever the animal has been attended to for the sake of its wool, it will afford good wool, but that the quality of the wool deteriorates when that of the mutton becomes an object.

We avail ourselves of this opportunity to introduce a table of the number of sheep in some of the states of Europe as compared with the population. We take it from an article, by M. Huot, in the 'Encyclopédie Moderne,' but have felt ourselves bound to make one alteration. In the original, 45,000,000 sheep are assigned to Great Britain—a number obtained, we presume, by allowing a certain rate of increase on the 42,000,000 given by Dr. Colquhoun in 1812; but Mr. Macculloch allows no authority to the calculation of this writer, and considers that the whole number of sheep in the United Kingdom does not at present exceed 32,000,000, which number we have therefore adopted.

	Population.	Sheep.	No. of Sheep to 1,000 Inhabitants.
Duchy of Anhalt-Bernburg . . .	56,000	90,000	1666
Spain	13,500,000	18,700,000	1385
Great Britain and Ireland . . .	21,500,000	32,000,000	1306
Duchy of Brunswick	242,000	280,000	1157
Grand Duchy of Saxe-Weimar . .	222,000	250,000	1126
France	32,800,000	35,000,000	1093
Hanover	1,550,000	1,600,000	1032
Prussia	12,400,000	9,000,000	725
Saxony	1,400,000	1,000,000	714
Russia in Europe	52,600,000	36,000,000	694
Austria	32,000,000	12,000,000	375.

SNOW HARVEST.—No. II.

IN Naples, the snow-trade, like those of salt, tobacco, &c., all over the kingdom, was, from very old times, a government monopoly. The king was accustomed to farm it to a company, who paid so many thousand ducats a year for the privilege, and who were moreover bound to sell the snow at a fixed unvarying price, and severely fined whenever they left the city unprovided with a quantity sufficient for the demand. The government, having committed the folly of interfering with this, or any other, branch of trade, at least showed wisdom in this severity, for few things could be more likely to excite the people to revolt than a dearth of snow in the dog-days. The Dogana della Neve is farmed, and produces a considerable revenue.

Of the mountains of snow brought daily into Naples, some goes to private families, who use it at their meals, some to the coffee-houses and sorbettieri, where it is made up in sherbet, lemonade, ices, &c., &c., and a large quantity to itinerant venders of inferior *gelati*, and to stationary acquaiooli, or water-sellers, who cool with it the plain beverage they sell to passengers at the corner of almost every street. In domestic usage, it not merely does its duty in the wine-cooler, but it is served up at table in an open vessel, out of which each person helps himself to a piece as he prepares to drink his wine,—which, we must remark, is always drunk from tumblers. There is a knack of filling up the mouth of the tumbler with a piece of snow and then pouring the wine gently upon it, letting it filter through the snow into the glass. That great desideratum, an icy-cold draught, is thus procured, and the effect to the eye is pleasing enough, particularly when "Capri Rosso," or any other ruby-coloured wine, is thrown upon the sparkling frozen snow.

* Macculloch's Dictionary of Commerce—Huot.

The coffee-houses, which are very numerous, nearly all sell lemonade and ices during summer. From eight o'clock in the morning till five in the afternoon the trade is mostly confined to sherbet and lemonade; but at the evening hour they begin a vigorous manufacture of *gelati*, which, in a well-frequented shop, knows no rest or cessation until after midnight. The gentry stop at the doors of these shops, and take the ices in their carriages, or sometimes go into the shop, the entire fronts of which are thrown open to the street. On a former occasion (Vol. II., p. 306), we praised their manufacture of maccaroni, and we must say here that the Neapolitans and the Sicilians are the best makers of ices in the world. The Parisian artists in that line are not to be compared with them, while our English ones are generally bad. The variety in the names and qualities of their *gelati* is almost endless. To make good ices good sugar is indispensable, and it was a sore affliction for these manufacturers, during some part of the existence of Buonaparte's continental system, to be obliged to use honey, or sugar made by French chemists from carrots and beet-roots, instead of the West Indian sugars we were wont to sell them. A few years ago there was a great sorbettiero living at the top of the Strada Toledo;—he was an old man who had witnessed sundry revolutions and innumerable political changes, but he only cared for two—the Milan and Berlin decrees that shut out sugar and made bad ices, and the fall of Napoleon and the abrogation of the said decrees, which threw trade open and brought about good ices.

While these shops supply the gentry, the itinerant venders deal with the poorer classes. Every summer evening, on the long mole, by the port, and in other places much frequented by the people, these eloquent and noisy traders ply their business. Their wares, of course, are not so good, but then they are much cheaper,—and are they not always cold? For three, four, or five grains, the sailor, the fisherman, the thirsty *calessiero*, or other labouring man, can obtain that *summum bonum*—a long mouthful of something cold and sweet. On the evenings of church festivals and holidays the trade carried on in this way is very extensive indeed, and, on such occasions, the flying ice-sellers are found in all the busy suburbs and outlets of the town, maintaining a deafening rivalry with the venders of water-melons and other luxuries.

But the steadiest, the least luxurious, and the most generally useful consumption of snow is perhaps that made by the stationary acquaiooli, or water-sellers. The shop, or trade establishment of one of this class of dealers, is a singular and not unpicturesque object. There is a high table or bench, having, on either side, two perpendicular wooden columns, between which (generally on both sides) is suspended a water-barrel that swings to and fro on an iron axis. These columns, or pillars, are crowned by an architrave, and a fantastically-shaped pediment finishes the out-door wooden shop, which may be about five feet long, four broad, and twelve high, to the top of the pediment. It is generally placed at the corner of a street, and always against the wall, leaving just space enough for the dealer to stand between the wall and his bench. The whole of the construction, were it not so bedizened and furnished out, would not look much unlike a pulpit; but as it is, it may more correctly be compared to a Chinese moveable Joss temple. It is painted all over with the gaudiest colours, frequently rudely carved and gilded, and decorated with flags and peacocks' feathers, while from pediment and column hang drinking-glasses of all sizes and fashions; and other glasses, mixed with bottles, flasks, oranges, and lemons, "in most admired disorder," bestrew the table or bench. In the rear of this medley, and generally bolt upright against the wall, and elevated on a stool, stands the officiating minister

of the temple, with a white or a red nightcap on his head, a red sash round his loins, his throat, chest, and arms entirely bare, and in his right hand an enormous pair of iron squeezers, or pincers, big enough and strong enough to draw the teeth of a mammoth, but which he only uses to express the juice from his oranges and lemons into the glasses of thirsty passengers.

The swinging water-barrels are closed at one end with thick cork, in which there is a large bung-hole for the admission of pieces of snow, and a small aperture for the emission of the cooled water. When the snow is thrown in, the man agitates the barrel until it is partially dissolved in the water; he also gives a shake or two every time he draws off a glass for a customer. A plain glass of water, but deliciously cold, with the vapour exuding through and standing on the outside of the glass like dew, only costs about half a farthing;—for twice that sum, a squeezed lemon or orange, or some drops of sambuco, are added. This sambuco is a curious, blueish, milky-looking liquor, distilled from the flowers of the elder-tree, of a peculiar but not unpleasant taste when mixed with iced water. A very great quantity of it is consumed in this way. The acquaiola, moreover, is always furnished with certain double-sized glasses of portentous dimensions, for which double price is charged. Rum, brandy, and all ardent spirits are utter strangers to the sanctity of the water-drinking shrine. It surprises some strangers to see that the Neapolitans, at the hottest time of the day, and when they are in a state of the most profuse perspiration from the effects of work or of walking in the broiling sun, will stop before one of these temples and take off a large glass-full of the coldest water at a draught, and with impunity. But this they all do daily, and in the hottest weather several times in the course of the day. We believe also that few foreigners live long at Naples without doing precisely the same thing, and with just the same impunity. In the great thoroughfares of the town these acquaioli carry on an immense deal of business, their stands, at certain hours of the day, being constantly surrounded by impatient customers, who empty the glasses more quickly than the dealers can fill them.

Nearly all that we have said here about Naples may be applied to Sicily. The great snow store-house of Sicily is Mount *Ætna*, and the English and the natives at Malta also derive their supplies from the caverns and summits of that volcano.

THE BANK OF ENGLAND.

THE business of this great establishment was originally transacted at Grocers' Hall in the Poultrey. Subsequently, in the year 1732, the first stone of the present building was laid, on the site of the house and gardens of the first governor, Sir John Houblon; and it was completed in the following year, from the designs of Mr. George Sampson. It then, however, only comprised the centre of the principal or south-front, the hall, the bullion court, and the court-yard. The wings to the east and west were added by Sir Robert Taylor, between the years 1770 and 1786; and the remainder of the structure has been completed, by the present Sir John Soane, since 1788. This eminent architect has within these few years rebuilt the parts executed by Sampson and Taylor, so that the whole building may now be said to be from his designs; and it has in consequence been divested of that confusion of styles and forms which it exhibited previously to 1825, whatever may be thought of the peculiar character which it now presents.

The architectural features of the exterior of this structure are at any rate in unison with the nature of the establishment, conveying an impression of opulence and

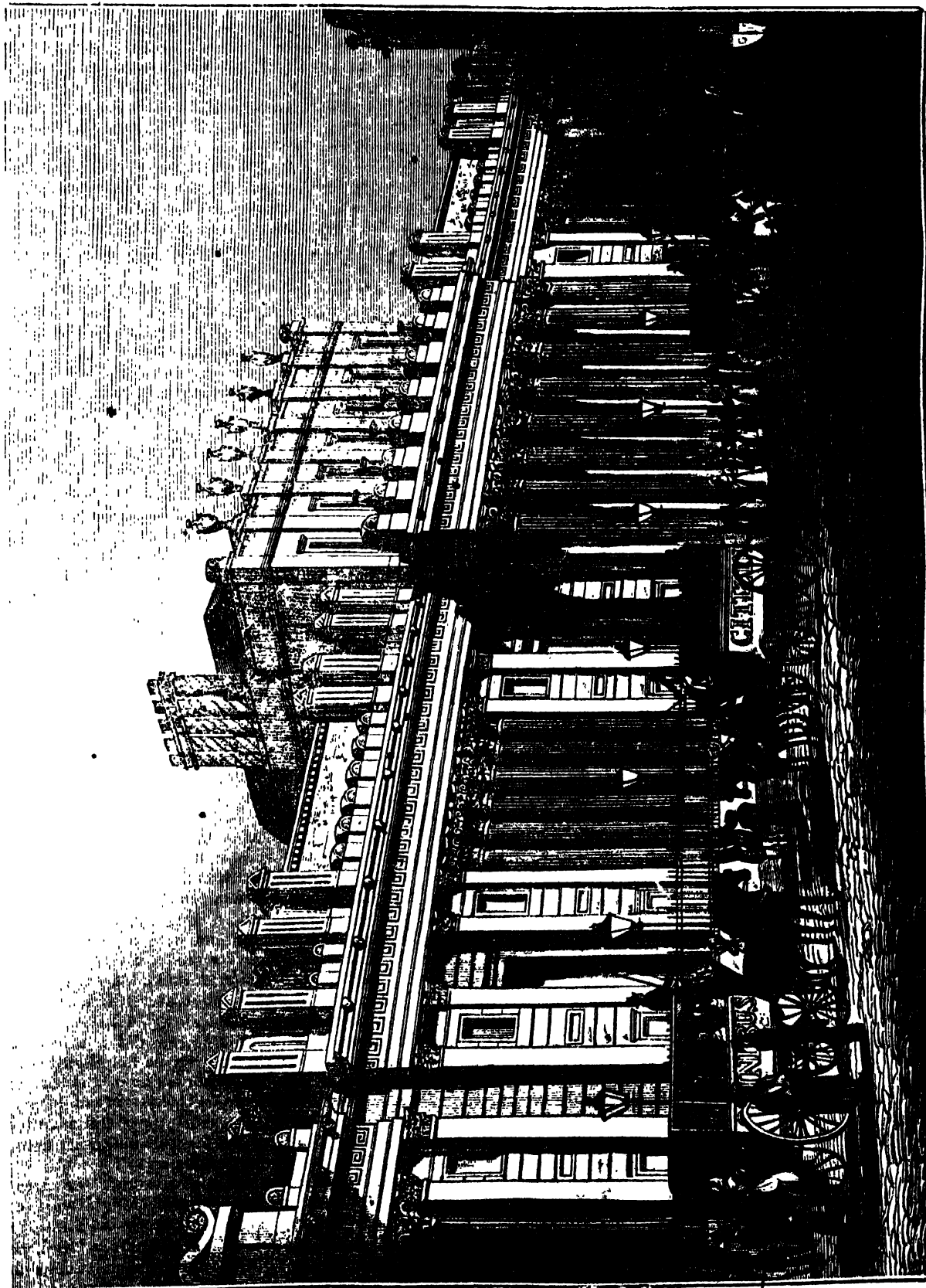
security. The order and forms in most parts of the exterior have been copied from the Temple of Venus at Tivoli, and the monotony of an immense line of wall has been obviated by projecting entrances under lofty arches, panelled windows, cornices, &c.; the entrances being ornamented by fluted Corinthian columns, supporting entablatures, crowned by elevated turrets. The whole of this extensive pile covers an irregular area of about eight acres. The exterior wall measures in front, or on the south side, 365 feet; on the west side 440 feet; on the north side 410 feet; and on the east side 245 feet. The area comprises nine open courts;—the Rotunda, or circular room, several large public offices, committee rooms, and private apartments for the residence of officers and servants. The principal suite of rooms is on the ground-floor, and the chief offices, being furnished with lantern-lights and domes, have no apartments over them; but beneath this floor, and even below the surface of the ground, there is more building and a greater number of rooms than above ground. Part of the edifice is raised on a soft, marshy soil, being in the course of the ancient stream of Walbrook; and it was therefore necessary to strengthen the foundations by means of piles, and to construct counter-arches beneath the walls.

The principal entrance to the Bank is in Threadneedle Street, but there are other entrances in Bartholomew Lane and Lothbury, and at the north-west angle of Princes Street. The latter consists of a noble portico, having a raised basement, on which stand eight fluted Corinthian columns, which are disposed semi-circularly, and support a highly-enriched frieze and attic, with a turret above. The vestibule, or entrance hall from Princes Street, bears the impressive and grave character of a mausoleum. The massive Doric columns, without bases, are placed on three different planes, raised by steps, in imitation of the Propylæa at Athens. Lothbury Court opens from a spacious and lofty archway, and presents an interesting display of architectural features designed after the best specimens of Grecian and Roman art. The brick buildings on the north and west sides are partially masked by open screens of stone, of the Corinthian order, copied from the Temple of the Sybils near Tivoli. The magnificent arch and façade on the south side of this court, forming the entrance to the Bullion Court, were designed on the model of the triumphal arch of Constantine at Rome. Statues emblematical of the four quarters of the world surmount the entablature; and, within the intercolumniations, there are allegorical representations, executed by Banks, of the Thames and Ganges in bas-relief.

The Rotunda, which has an immediate communication through its vestibule from the entrance in Bartholomew Lane, is a spacious circular chamber, with a lofty dome, fifty-seven feet in diameter, crowned by a lantern, the divisions in which are formed by caryatides. In this room, large desks, with pens, ink, &c., are placed for public convenience. There a large number of persons of all nations and classes assemble on public days to buy and sell stock. But since the erection of the New Stock Exchange, the business transacted at the Rotunda has diminished in quantity and importance; although it is much frequented by stock-holders, who wait there to learn the result of commissions given to their brokers. The dome of this room is very striking as a work of art; but it is ill adapted for an assembly of talking persons: the reverberation is overpowering. The Three per Cent. Consol Office is another fine apartment, in which Sir John Soane has displayed much taste and skill. It is an oblong room, about ninety feet in length and fifty in breadth, designed from models of the ancient Roman baths, and of a very highly-enriched and classical

character. The vaulted ceiling springs from ornamented piers, and in the centre there is a handsome dome or lantern-light, supported by caryatides. The soffits of the arches are decorated with panels, roses, and other objects. The whole is constructed without timber. The Three per Cent. Consol, Dividend, and Bank Stock Offices are of similar architecture. The Chief Cashier's Office is a noble apartment, measuring forty-five feet by thirty feet; its decorations are simple, and it is lighted by large and lofty windows. In the Pay Hall, where bank notes are issued and exchanged

for cash, and which forms part of Sampson's' original building, there is a marble statue of William III., by Cheere. Over this apartment (which is seventy-nine feet long and forty feet wide), but in a separate building, is the Clock, a very ingenious piece of mechanism, so contrived as to show the exact time in sixteen different offices, the necessary communications being maintained by brass rods, weighing about 700 lbs. The Court Room is a handsome apartment of the Composite order, designed by Sir Robert Taylor; it is lighted from Venetian windows on the south side.



[The principal Front of the Bank of England.]

These windows overlook a pleasant area, planted with trees and shrubs, that was formerly the churchyard of St. Christopher's, nearly the whole of which parish is now enclosed within the Bank walls. The old tower and remaining part of the church itself were taken down by authority of parliament, after the riots in 1780, the more effectually to secure this establishment. In some of the other offices there is much that is worthy of mention, and much in architectural design to gratify the practised eye, when it perceives with what care and judgment the forms and styles of ancient art have been adapted to their respective situations. It becomes a question, however, whether utility has not in many cases been sacrificed to a love of classical decoration; and whether those forms of ancient architecture which we admired so much when surrounded with their original associations are not materially injured by their adaptation, piece by piece, to the construction of a large pile dedicated to the purposes of commerce.

The greater part of this extensive edifice is of stone; and, in order to obviate any danger from fire, all the new buildings erected under the superintendence of Sir John Soane have been constructed with incombustible materials. The vaults, in which the bullion, coin, bank notes, &c., are deposited, are also indestructible by fire. The building has also the advantage—somewhat rare in the city—of standing perfectly detached; it is, nevertheless, closely hemmed in by the Royal Exchange on the south side and private houses on the others. On account of its inferior elevation, however, it does not suffer so much from this cause as many other buildings; especially as an opening in Cornhill affords a fine view of the Threadneedle Street façade, which is represented in our wood-cut.

The hours of business at the Bank are from nine in the morning until five in the afternoon, except on holidays; and any person may visit the Rotunda and most of the other public apartments.

OLD TRAVELLERS.

WILLIAM DE RUBRUQUIS.—No. IV.

DURING the residence of Rubruquis at the city of Kara-korum, which at the time was the grand khan's capital, our traveller saw many Russians, Hungarians, and some Germans. There was also a considerable number of Armenian and Georgian Christians. He picked up some information about the Chinese, or Catayans, as they were so long called; the Siberians, the Kamtchatkans, and (it should appear) the inhabitants of the islands between the extremities of Asia and America where, at times, the sea was frozen over. Rubruquis was the first to inform us that the Chinese had a paper currency, a curious fact afterwards confirmed by Marco Polo. Such a currency was not adopted in Europe until centuries after. He was also the first to give a notion of the peculiar characters, and the mode of writing, of the Chinese. He says, they did not write with pens as we do, but with small brushes such as are used by our painters, and that in one character or figure they gave a whole word. The common money of the Russians, he says, consisted in spotted or grizzled furs; and this primitive sort of currency is still the only one known in the remoter parts of Siberia at this day. Seeing, however, slight hopes of doing any good in Tartary, and being already tired of the court and the treatment he received there, the friar with great joy went to the palace on Whitsunday to get his leave for returning homeward.

This permission, and a letter from the grand khan to St. Louis, were not ready until the festival of St. John, when the monks received some trifling presents from Manchu, and were finally dismissed. Father Bartholomew of Cremona, the only European of the mission

that had accompanied Rubruquis thus far, was so terrified at the plan he now proposed to recross the very desert by which they had come, that he left him, and remained behind with William the goldsmith until some more convenient opportunity of regaining Christendom should present itself. Nothing daunted by this defection, the worthy friar began his journey in the direction he intended, accompanied only by his interpreter, one servant, and a guide. The guide had authority from the khan to take a sheep once in four days, wherever he could find it, for the support of the party. Rubruquis had been nearly two months on the road when he met Sartach, the great chieftain, whose acquaintance he had made on his outward journey near to the river Don. Sartach was now travelling with his wives and children, and many flocks and herds, to the court of the grand khan; but he had left the mass of the families, over whom he ruled, wandering with their cattle between the Don and the Volga. To an application made by the friar for some books, dresses, and other property left behind at the chieftain's encampment, Sartach replied, that he would find them all with Baatu, his father, or father-in-law. He sent Rubruquis a civil message, and two silk pelisses, one for the King of France and the other for himself. On his way back the friar suffered almost as much as he had done going out. Several times he had nothing to sustain his strength, for three days together, except cosmos; and on more than one occasion he was well nigh perishing in the wilds, having missed the stations of the migratory tribes, exhausted even his cosmos, and almost worn out his horses. It was after a journey of four months, on the 16th of September, and precisely one year after he had quitted it to go on to Manchukhan's court, that he again reached the court or encampment of Baatu. Here he was courteously received, and recovered a part but not the whole of his property. Baatu and all his dependents had long concluded that the monks must have perished; and some Nestorian priest, who lived sometimes with Sartach, and at others with Baatu, had appropriated their church vests, stoles, psalters, and such like effects. Rubruquis found two or three young men (Europeans), whom he had left behind, in tolerable health, but in abject poverty. The Tartars, believing the friar could never return, had asked them if they could manage oxen and milk mares, and they would have been reduced to servitude and bondage, but for the kind offices of some Armenians, and the arrival of Rubruquis. Baatu's court was then about to move to Sarai, on the eastern bank of the Volga; and as our friar calls Sarai a town, and speaks of buildings, it seems probable that some of the wandering Tartars were adopting more fixed habits of life. Rubruquis accompanied the court during a whole month; but, tired with the slow and indirect movements of the Tartars, who as usual conducted their flocks and herds with them, he procured a guide, took leave of Baatu, and pushed forward for Sarai, always keeping due south, and near to the Volga. He reached Sarai without accident, and left that place on the feast of All Saints (1st of November), still travelling southward. For the first five days after quitting the Volga, which flows in several branches, our friar did not meet a human being, and for fifteen days he found only one little village or encampment, where one of the sons of Sartach was residing with a goodly company of falconers and falcons. At this place they gave him a Tartar guard to protect him from the Lesghis and other fierce and independent Mohammedan tribes.

Our traveller went unmolested through the great defiles of Mount Caucasus, and through part of Armenia; but his progress was very slow. Thinking that his royal master was still in the Holy Land, he crossed the Araxes, and traversing the dominions of

the Turkish sultan, Kurdish princes, and others, that included a great part of Asia Minor, he at length arrived at the city of Konieh, the ancient Iconium. He complains of the slow rate at which he had travelled in Asia Minor, and says that "this delay arose in part from the difficulty of procuring horses, but chiefly because the guide chose to stop, often for three days together, in one place, for his own business; and, though much dissatisfied, I durst not complain, as he might have slain me, and those with me, or sold us all for slaves, and there was none to hinder it."

From Iconium he made his way across the rest of Asia Minor, and over Mount Taurus, to the Gulf of Scanderoon, where he embarked for Cyprus. At that island he found the father provincial of his order, and learned, with much sorrow, that King Louis, who had sent him among the Tartars, was no longer in the Holy Land, but in France. Had Rubruquis known this sooner he would have shaped the latter part of his course very differently, for his great desire was to relate his adventures to the king in person, and to see Europe once more. But here he had thrown himself within the direct rule of his superior, who carried him to Antioch, and thence to Tripoli in Syria, where he arrived in the month of August, just in time to assist at a chapter of his order. He had been altogether about two years and six months on his travels, and he now earnestly besought his superior to allow him to go on to Paris; but the provincial, thinking he had had wandering enough, and being a strict disciplinarian, ordered the friar to write to Louis, and then retire to his convent at Acre. When Rubruquis wrote, he implored the king to obtain the provincial's permission for his going to France, pledging his word that he would soon again return to his convent in the Holy Land. We have not been able to ascertain whether he obtained this favour, or whether he remained shut up in his cell. Indeed, after his return to Syria, nothing more seems to be known of his life, except that he was alive somewhere as late as 1293, by which time a greater traveller than he—Marco Polo—was on his way back to Europe.

It is evident that these two early explorers, though they often confirm each other's accounts of the Tartars, knew nothing at all of one another, either personally or by their respective fame and writings. Before the invention of printing, and the diffusion of a love for letters among the people, fame travelled very slowly. Even in France, Rubruquis himself was little known until many generations later. His letter to King Louis IX., containing the account of his travels, was written in the Latin of those days. An Englishman first gave it a modern and popular dress*. This was old Hakluyt, who introduced a translation of the greater part of it in his 'Collection of Voyages and Travels,' published about 1600.

After Hakluyt, Purchas, in his "Pilgrimes," gave the whole letter, from a copy he found in "Benet Colledge Library, in Cambridge," with his usual felicitous quaintness. Purchas's folio, which contains it, was published in 1625. Four years after, Father Bergeron translated it from Purchas's English into French, being aided, he says, by two old manuscript copies of the work in Latin. Since that time Rubruquis has obtained reputation, and the place he merits in the history of travellers, some account of his journey being included in most collections of voyages and travels. His pictures of manners and customs are, as we have already said, exceedingly good; but it is much to be regretted that, from want of geographical science,—from vagueness of language,—and in part, probably, from the mistakes of the earlier copyists of

his MS., we can seldom trace his course with any precision. He had, however, the merit of being the first traveller that gave a correct account of the Caspian. That inland separate sea was correctly described as such by the early Greeks, but afterwards a notion prevailed that it was connected with the northern ocean. Rubruquis ascertained that it was everywhere surrounded by land, and had no connection with the ocean or with any other sea. Yet, so little was the account of his journey read, that the old error was repeated in books of geography long after his time.

YORK CASTLE AND CLIFFORD'S TOWER.

THE Castle of York, now the county gaol, stands at the distance of about 200 yards from the eastern bank of the Ouse, and close to the Foss, which being brought round it in a deep moat or ditch renders it inaccessible, except from the city, on the north. Historical evidence sufficiently proves that before the Norman Conquest York had a castle, which Drake, in his 'Eboracum,' supposes to have been the Old Baile, on the opposite side of the Ouse. The castle on the present site, according to the opinion of the same author, was built by William the Conqueror, but probably on a Roman foundation. Having fallen to decay, it was repaired, or rebuilt, in the reign of Richard III. After it was no longer used as a fortress, it was converted into a county prison; but, having fallen into a ruinous state from age, it was taken down in the year 1701, and in its stead a structure was erected which, so lately as thirty years since, was considered to form one of the best regulated and most commodious prisons in the kingdom. However, it was presented by the grand jury at the Lent Assizes, in 1821, for insufficiency; and this presentment was repeated at each succeeding assizes, until a resolution was at last passed, in the year 1824, that a competition of architects should be invited in the usual manner, in order to procure the best plan for effecting the proposed improvements. That of Mr. Robinson of London was preferred, and in 1826 the works were commenced under his direction and superintendence.

The plan of the new portion of the prison is upon the radiated and panopticon system, the governor's house forming a centre from which all the prisons and airing courts diverge. Each prison is capable of containing 20 individuals; the day-rooms are on the ground-floor, and the cells in two stories above. For each class of prisoners there is a paved yard, and a court for exercise 100 feet in length by 50 feet at the wide end, narrowed to 10 feet at the farther extremity. The cells are constructed 9 feet by 5 feet, with corridors affording access to them all. The peculiarity of the plan—and it is believed that this prison is the only one that has been built with this arrangement—is, that the governor and turnkeys can pass unseen from the centre to any part of the prison, through secret passages in each of the buildings, connected with a corridor of inspection which surrounds and connects the whole. From these passages, too, every thing that passes within the prisons can be seen; and as the prisoners know this, they have a right to suppose that the governor's eye is always upon them.

Prison building is not at all times interesting in an architectural point of view; but the architect has, in this instance, adopted the castellated character. In enlarging the old building, he has formed his design in the style of the ancient bars or city-gates of York, which are much admired for their simplicity, and for the manner in which they preserve the architectural characteristics of the age in which they were built. The entrance gate-house, the internal elevation of which is exhibited in our wood-cut, is in some degree similar to the Monk Bar. It is flanked by circular towers of great strength,

* Friar Bacon makes honourable mention of Rubruquis, and gives a spirited abstract of his travels in one of his theological works,—but this was written in Latin.

and extends 70 feet in front by 46 in depth. The prison is fire-proof, the structure being entirely of stone; the walls are 5 feet thick below, and 3 feet above, and no timber is used in the floors, the stone extending from wall to wall. Each cell of the prison is covered with a single piece of stone 5 inches thick, and the cells are divided laterally by single stones 9 inches thick. The doors are of hammered iron, and three iron guards are placed in each aperture in the thickness of the wall.

The boundary wall surrounding the new prison, the old debtor's prison, and the court-house is 35 feet in height above the ground, and it has towers at intervals to strengthen it. This wall is 1350 feet in length, and is, in itself, a specimen of very superior workmanship. Upon the whole, York Castle may be considered the strongest prison in England, and it is certainly one of the most complete and efficient. The criminal side affords room for 160 prisoners, divided into eight classes of twenty each. The airing courts are divided by walls twenty feet in height. The whole building is well supplied with water and well ventilated.

In all the alterations which have taken place, "Clifford's Tower," which stands within the walls, and which we now proceed to notice, has been preserved with the most scrupulous care.

A short distance within the gateway there is a high mound, thrown up with prodigious labour, and surrounded by a strong stone wall. It appears to be elevated at least ninety feet above the level of the Ouse, and thirty feet above the site of the castle or gaol, and the adjacent parts of the city. On the summit of this mound stands an ancient tower, called "Clifford's Tower;" and, according to tradition, one of that family was its first governor, after it had been built by the Conqueror for the purpose of overawing the city and country. The castle itself was found by Leland in a ruinous state in the time of Henry VIII. But on the commencement of the civil wars between Charles I. and

the Parliament, it was completely repaired and fortified by order of the Earl of Cumberland, the governor of York. On the top of the tower was made a platform, on which several pieces were mounted: a garrison was appointed for its defence, and Colonel Sir Francis Cob was its governor during the siege of the city. After the surrender of York in 1644, it was dismantled of its garrison, except this tower, of which Thomas Dickenson, the lord-mayor, a man strongly attached to the cause of the Parliament, was constituted governor. It continued in the hands of his successors, as governors, till 1683, when Sir John Reresby was appointed to that office by Charles II. In the following year, 1684, on the festival of St. George, about 10 o'clock in the evening, the magazine took fire and blew up, and the tower was reduced to a shell, as it remains at this day. Whether this happened accidentally or by design was never ascertained; but the demolition of the "minced pie" was, at that time, a common toast in the city; and it was observed that the officers and soldiers of the garrison had previously removed their effects, and that not a single man perished by the explosion.

The mount on which this tower stands corresponds, as already observed, with that of the Old Baile on the opposite side of the Ouse. Within this tower is an excellent well of water: here was also a dungeon so dark as not to admit the least ray of light. Drake says,—“By the extraordinary labour required for the raising of this mound, it seems to have been effected by no less than a Roman power, though the Conqueror might build the present structure, the inside of which exhibits a regularity very uncommon in a Gothic edifice.” But Mr. Bigland remarks on this,—“We have no such topographical knowledge of the Roman ‘Eboracum,’ as can enable the present age to advance anything beyond conjecture on the subject; and great works have been performed by other men as well as by Romans.”



[Clifford's Tower, and Entrance to York Castle.]

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HULL



[Market Place. Hull.]

THE town of Hull, or Kingston-upon-Hull, is situated in the East Riding of Yorkshire, at the point where the river Hull falls into the Humber, at the distance of about twenty-five miles from the mouth.

VOL. II.

On the data of recent parliamentary returns, Hull may be pronounced one of the three or four principal maritime towns in the kingdom with regard to its foreign trade, while its inland trade exceeds that of every other English port. These advantages it owes to its admirable situation for commercial purposes, an idea of which will be better obtained by reference to a good map than from any verbal description. The river Humber is the common outlet by which all the eastern rivers of England, from the Tees to the Trent, discharge their waters into the North Sea. It therefore opens an easy access from Hull eastward to the sea, and commands at the same time, by its various branches, the whole of the interior navigation of the west, and affords access to the widely-extended communications which ramify from thence to all parts of the kingdom. By means of the rivers Hull, Derwent, and Ouse, the Humber communicates with the East and West Ridings of Yorkshire. The Ouse and Calder navigation opens the communication, on the one hand, with the remainder of the West Riding, the seat of the woollen manufactures,—naturally barren, but rendered wealthy and populous by the power of industry and art; while, on the other hand, the same navigation communicates with Lancashire, the centre of the vast cotton manufactures, and including the grand western emporium—Liverpool. Then again the Trent affords access to the great stocking district of Nottingham, the mining and mineral district of Derbyshire, the potteries and coal of Staffordshire, and the whole course of the Severn to Bristol; and by means of intermediate branches still farther communication is opened with Dorbyshire and with Sheffield. The eastern waters which finally unite in the Humber, by the assistance of the subsidiary streams which extend to the west, the north, and the south, collect the various products of the districts through which they pass, and, depositing them at Hull, bear back in return the merchandize which had been drawn to that port by its great trade with foreign parts. The foundation for an extensive system of commerce having thus been laid in the situation of the place, what else was required has in the course of time been amply provided by industry.

The place is not mentioned in 'Domesday Book,' as at the period of the Norman survey it was included in the manor of Myton; but it appears that, about the middle of the twelfth century, there were two villages, situated at the confluence of the Hull and the Humber, and called respectively Wyke and Myton. The former must have become afterwards a place of some consideration for the time; as, in 1278, the abbot of the neighbouring monastery of Meaux, who was lord of the manor, procured for the town of Wyke, as it was then called, the grant of a market and a fair. The present name of the place is derived from Edward I., who, on his triumphant return from Scotland in 1296, perceived the advantageous situation of the place as a commercial port, the prosperity of which he determined to encourage. Accordingly he purchased the manor of Myton, including the town of Wyke, the name of which he changed to Kingston or King's-Town-upon-Hull, and constituted it a separate manor under the government of a warden and bailiffs. Three years after the same monarch made the town a free borough by royal charter, and endowed it with various immunities and privileges. The year following a mint for coinage was established in the place; and subsequently the roads to the town were much improved, and access to it was facilitated by ferries across the Humber. Hull prospered greatly under the royal favour, but Edward I. was not, as is sometimes erroneously stated, the parent of its prosperity, or the founder of the port; for the commerce of the place had become considerable even so early as the reign of King John. From a record of the duties

paid at the several ports of the kingdom in the year 1205, it appears that Hull paid more than any other port except London, Boston, Southampton, Lincoln, and Lynn; and, in the time of Edward himself, it had so far increased in relative commercial importance as to be, with respect to duties, inferior to London and Boston only. Sixty years after the period when Edward became interested in the welfare of Hull, the town was able to contribute 16 ships and 466 mariners towards the fleet which his grandson, Edward III., collected for the invasion of France. The town was first fortified under a charter of Edward II.; and, in the time of his grandson, Richard II., the walls were repaired and strengthened with towers of brick, by Sir Michael de la Pole, who is thought to have revived, on this occasion, the art of brick-making, which had been lost since the time of the Romans. This person, who was a native of Hull, possessed much influence in the state at that period, and to him the town was in some degree indebted for its subsequent prosperity. Henry VI., besides confirming to the town all the privileges granted by his predecessors, erected it, with its precincts, into a distinct county, with the usual privilege of a separate jurisdiction.

In the year 1536 Hull was taken by the Yorkshire insurgents under Robert Aske, who opposed the ecclesiastical changes that were then in progress, and who styled their expedition the "Pilgrimage of Grace;" but the rebellion was soon suppressed, and the leader executed. It was most probably this circumstance that induced Henry VIII. to build two block-houses and a citadel on the east bank of the river Hull, at an expense, enormous at that time, of 23,000*l.*, although he obtained great part of the materials from the dissolved houses of the Black and White Friars, and the church of St. Mary. Hull was the scene of another unsuccessful rebellion in 1569; and at different times in the fifteenth, sixteenth, and seventeenth centuries the town suffered severely from plagues and inundations. Of the various visitations of the pestilence, that which commenced in 1635 was one of the most awful. It raged for three successive years, and to the natural horrors of this terrible calamity those of famine were added; for the country people were too much alarmed for their own safety to bring the customary supplies of provisions to the town, the population of which was left to perish with want and with the plague. A few years after the cessation of this calamity, Hull became the theatre of the war between Charles I. and the Parliament. As a depôt of arms and military stores had been established there previously to the commencement of hostilities, both parties were anxious to secure possession of a place of so much importance; and this circumstance gives to Hull a place of some prominence in the early history of that unhappy contest. The attempt of the king to obtain admission, and the vacillating conduct of Sir John Hotham, the parliamentary governor, are well known facts in the general history of the country. About the year 1681, large sums of money were expended by Charles II. in improving the fortifications of the town. Most of the ancient fortifications have now, however, been demolished, and have given place to works of great extent and importance for the advantage of manufactures and commerce. The docks which, with the river Hull, nearly insulate the parish of St. Mary, which formed the old town, occupy the greater part of the space covered by the ancient defences.

The docks are three. The first, in point of time, called the "Old Dock," was begun in the year 1775. It enters the town from the Hull, about 300 yards from its mouth, and occupies the place of the old walls and ramparts on the north side of the town. It is 1703 feet in length, 254 broad, and 66 deep. It covers an

extent of about 10 acres, and is capable of containing 130 vessels of 300 tons. The second dock, called the "Humber Dock," was begun in 1807, and completed in 1809 at a cost of 220,000*l*. It is on the west side of the town, and the entrance is from the Humber, into which it opens by a lock which will admit a 50-gun ship, and which is crossed by an iron bridge. This dock is 914 feet in length, 342 in breadth, and 7 acres in surface. A third dock, named the "Junction Dock," was begun in 1826, and completed in 1829. It is 645 feet long, 407 broad, and in extent more than 6 acres: being situated between the two former, it completes a line of docks which extend from the Hull to the Humber, and divide the old town from the new by water on every side. The bridges across the locks are constructed of cast iron, on the lifting principle, each 24 feet wide, and said to be of greater magnitude than any moveable bridge of earlier date.

The town itself has been greatly enlarged within the last forty years. From the point where the rivers Hull and Humber meet it now extends about two miles westward along the northern bank of the Humber, and rather more towards the north along the western bank of the Hull,—from its mouth at the Humber along the High Street, the oldest part of the town, to the northern extremity in the parish of Sculcoates. From the streets which line the Hull and Humber, and form the eastern and southern boundaries, various others, upon no very regular plan, branch off into the interior,—from the former towards the west, and from the latter towards the north, crossing each other in different places, and covering a very extensive area of ground. Almost the whole town is of brick, and in general well built and paved;—furnished with well-constructed sewers, and lighted with gas. The streets in the old part of the town are, as might be expected, narrow, inconvenient, and unpleasant. But the streets and buildings which have been added within the last forty years strongly evince, by contrast, the progress of general improvement, and the taste for elegance and ornament which is generally exhibited when the increase in the wealth of a town is commensurate with the extension of the space it occupies. In the new parts of the town, the streets are generally spacious and regular, and the buildings commonly elegant, and occasionally magnificent.

The whole town stands on a low and level tract of ground, within a short distance of the Wolds of Yorkshire. The place is now well secured from the danger of inundation by embankments. Water, for the use of the inhabitants, is conveyed by pipes from a reservoir, which has the appearance of a canal, being five miles in length.

The public buildings of Hull are numerous; but the only one that claims notice for architectural elegance or magnificence is the Trinity Church, a fine old structure, in the Gothic style, built about the year 1312. It occupies a space of 20,056 square feet. It extends 279 feet from the west door to the east end of the chancel. The nave is 144 feet long; the breadth of the transept 28, and the length of the chancel 100. The breadth of the nave is 72 feet, and the breadth of the chancel 70 feet. St. Mary's Church, commonly called the Low Church, was built a few years later than the preceding, and was once a magnificent and extensive edifice, of which the existing building constituted the choir, the remaining part having been pulled down by order of Henry VIII.: the present tower was added in 1696. The other church, that of St. John, is a neat and simple brick building, finished in 1792; it is wholly built upon arches, raised seven feet above the ground. The town also contains ten places of worship for Dissenters, and a synagogue for the Jews.

The Free Grammar School, which has enjoyed some reputation as a classical seminary, was founded by Alcock, Bishop of Ely, in 1436; the school-room is one of the best in England. The "Vicar's School" is also a free institution, founded, in 1734, by the Rev. W. Mason, the father of Mason the poet, for sixty scholars. There are various other charity and subscription schools, some of them on the Lancastrian system. The other public buildings are the Citadel, situated on the east bank of the Hull, for the defence of the harbours and town;—the Custom House, a spacious and handsome building;—the Exchange, a substantial brick structure;—the Theatre, a large building in Humber Street;—the Gaol, a very commodious building;—and the Subscription Library, which has an excellent collection of books, with a numerous body of subscribers. The catalogue of this valuable library is an admirable specimen of bibliographical arrangement. The Mechanics' Institution has an excellent theatre, and there have lately been erected a fine music-room, museum, and lecture-room, under one roof. The Market-place has also been much improved, and in the centre there is a fine equestrian statue of William III. This part is represented in our wood-cut. About a mile from the town there are Botanic Gardens, which are well furnished with scarce and curious exotic plants.

The manufactures of Hull are not considerable, and are almost limited to the supply of some of its own wants, and those of the shipping which frequent the port. The Boundary Commissioners say:—"The East Riding of Yorkshire would be almost entirely agricultural, did not the town of Hull contain the manufactures indispensable to an active sea-port." Its trade is a more extensive subject, and to the facts which we have already stated in connection with the history of the town, we shall only add here that its foreign trade is principally to the Baltic and in the whale-fishery, which it has a larger share of than any other British port. But it also keeps up a regular traffic to the southern parts of Europe, and to the West Indies and America. The following statistical details relating to the town of Hull are drawn from parliamentary documents, and will furnish the most satisfactory information on this point. When a very recent date is not mentioned, we are not aware that a later return has been produced.

In 1829, the number of vessels belonging to Hull was 579, the burden of which altogether amounted to 72,248 tons. Hull early became the rival of London in the Greenland whale-fishery, and has now for a long period had about two-fifths of the whole business. On the average of the years 1810 to 1818, this port employed yearly in the fishery 63 vessels, the average number from all the British ports being 131. In the year 1830, the total number of British ships engaged in the fishery was 91, of which Hull contributed 33; and her vessels obtained 339 of the total number of 571 whales that were caught. Some idea of the inland trade of Hull may be obtained from the fact that, so long ago as 1792, the value of the merchandize, stones, coals, &c., conveyed to and from Hull by the Aire and Calder navigation alone amounted to no less than 5,156,998*l*.; and, judging from this, the whole together would not fall much short of 15,000,000*l*. In the year 1831, the number of vessels, British and foreign, that entered Hull from foreign parts, was 1714, the burden of which amounted to 262,935 tons;—this was much exceeded by London and Liverpool, but no other port attained half the amount either of ships or tonnage. Another criterion of the relative importance of the port is afforded by the amount of the duties collected. A recent parliamentary paper thus states the amount collected at the principal ports in the year

1633:—London, 8,692,898l.; Liverpool, 3,733,132l.; Bristol, 1,083,323l.; Dublin, 654,754l.; Hull, 624,057l. In the year 1701, the amount of the customs at Hull was 26,287l.; in 1778, 78,299l.; in 1802, 438,459l.; and in 1810, 311,780l.

The town first sent members to parliament in the thirty-third year of the reign of Edward I.; but regular returns have only been made since the twelfth of Edward II. Until the limits of the borough were extended by the operation of the Reform Bill, the elective franchise was limited to the parish of St. Mary—the portion of the town surrounded by water in the manner we have already stated. The right of voting was vested in the burgesses and freemen, and the greatest number of voters polled at any election within the last thirty years was 2299, in the year 1826. The Reform Bill has greatly increased the extent of the borough, and proportionately multiplied the number of electors. The population of the old borough was 15,996, while that of the town was not less than 46,426. The population of the present borough is 49,727. The annual value of the real property assessed in Hull, in 1831, was 112,814l. The area of the town, exclusive of Sculcoates and other important suburbs, was, in 1831, 960 acres; and that of the county of the town 10,640. The number of inhabited houses was 8,726; 174 were building, and 777 were uninhabited. The number of families was 11,510: of which 49 were employed chiefly in agriculture; 4,476 in trade, manufactures, and handicraft; and 7,012 were not comprised in either of the two preceding classes. The population exhibits the disproportion of the sexes usual in sea-port towns, the females being 25,687, and the males 20,739. Sculcoates is included in such parts of this statement as refer to income and population.

DOMENICHINO.

DOMENICHINO is the name by which artists distinguish a very eminent Lombard painter, whose real name was Domenico Zampieri. He was the son of a shoemaker, and was born at Bologna in the year 1581. He commenced his studies in painting under Dionigi Calvart, who soon sent his pupil home with a blow on the head, because he one day caught him copying some prints from the works of Augustin Caracci. Perhaps this circumstance recommended him to the notice of Augustin and his cousin Annibal, for we next find Domenichino one of their pupils. His fellow-students do not appear to have held his talents in much esteem. He worked with so much apparent indecision and difficulty, and his operations were so slow, that they nick-named him the "Ox." Annibal Caracci, however, saw much deeper into his pupil, and foretold that the "Ox would one day render fruitful the field he ploughed." Domenichino was of a retired and gentle character, entirely devoted to his art; and during no period of his life mingled much in society. Whenever he left the house it was to go to the markets and the theatres, in order to study the figures and countenances of the people, and to observe how Nature herself painted the passions and the feelings. Whatever struck his attention strongly he was accustomed to sketch on the spot. "It was thus," says Bellori, "that Zampieri accustomed himself to design the minds of men and to colour life."

During his pupilage with the Caracci at Bologna Domenichino formed a most intimate attachment with Albano, who was one of his fellow-students, and whose friendship in after times was one sweetening circumstance in a life embittered by many enmities and troubles. After having visited Parma, Domenichino was probably drawn to Rome as much by the circum-

stance that his friend Albano had removed thither as by any other inducement. His master, Annibal Caracci, who had acquired great influence over him, also proceeded to Rome, upon the invitation of Cardinal Farnese, and still continued to afford him instruction. No sooner had Zampieri begun to attract attention by his talents, than Lanfranc, another pupil of Annibal, declared war against him; thus commencing the system of hostility which was taken up and carried on by others, and which sometimes obliged the unhappy painter to prepare all his own victuals, for fear of poison, by which, after all, there is reason to conclude that the life of this modest and inoffensive man was terminated. On the present occasion his friend Albano secured powerful protection for him; but, disgusted with the unjust and indecent attacks of which he was the object, he relinquished the pencil and devoted himself to sculpture. We possess no account which enables us to understand well the cause of the unworthy treatment to which he was at all times and in all places exposed; but it is greatly to be lamented that those whose pursuits ought to teach them the value of tolerance and charity, have been, and too often still are, the most remarkable for the intensity of their prejudices and hatred. Annibal Caracci, however, induced Domenichino to resume his pencil in order to paint a picture in express and declared rivalry with Guido. They painted the same subject ('The Martyrdom of St. Andrew') on opposite panels; and the preference has very generally been given to the work of Domenichino. On this occasion Annibal said that the fresco of Guido was that of a master, and that of Zampieri of a scholar, adding, however, that the scholar excelled the master. By this he was understood to say that Guido, who had nothing more to acquire, had been surpassed by one who might still much improve by further study.

The history of a painter is seldom much more than the history of his works. Those of Domenichino we cannot mention in detail, but shall proceed briefly to characterize his style, after having mentioned that he remained long enough at Rome to paint several of his most capital works; and that then the vexation and alarm in which he lived induced him to withdraw to his native city, where he married, and employed himself two years on his famous picture of the Rosary. He was afterwards recalled to Rome by the pope, Gregory XV., who appointed him his principal painter, and architect of the Vatican. The death of the pontiff deprived him of these appointments, and he accepted an invitation to Naples to paint the chapel of St. Januarius. But at Naples the Greek painter Corenzio ruled "the realms of art" with the most tyrannic sway, and Domenichino suffered so much insult and mortification from him in his new undertaking, that he renounced it in despair and fled to Rome. He found it, however, necessary to return to Naples, and complete his work; and he received, as its compensation, the liberty of his wife and children, who had been imprisoned there. He died soon after, in the year 1641, at the age of sixty, and not without strong suspicion that he had been poisoned.

Of the various excellent artists which issued from the school of the Caracci, none occupy so high a place as Domenichino. Many concur with Poussin in thinking him second to Raphael only, and there are none who place any except Raphael, Correggio, and Titian before him. He had a most bold and masterly pencil. It was customary with him to work up in his mind the actual feeling of the passion he intended to depict; so that, while studying by himself, he was often heard to laugh, weep, and talk aloud, in a manner which might have led a stranger to conclude that he was mad, if he had seen him under the influence of these artificial paroxysms. The expression of violent passions was,

indeed, his favourite object. While he was engaged in painting the martyrdom of St. Andrew, and about to represent the rage of a soldier, Annibal Caracci called unexpectedly to see him, and he was in the habit of declaring afterwards that he received more instruction on that occasion from the sight of his extraordinary

pupil than he had ever obtained from any picture. He painted generally in fresco, and somewhat in a theatrical style, from the architecture with which he used to accompany his subjects, and in which he particularly excelled. On most occasions he chose to represent the fierce and stormy passions, or the trials of fortitude



[Æneas preparing to carry his father from Troy.]

which rouse the strongest energies of man. There is seldom any obscurity in his subjects; the figures speak their purpose with an expression, dignity, and force, which renders the intention remarkably intelligible.

The painting represented in our wood-cut is generally allowed to be a work of Domenichino, although the fact has sometimes been questioned. It represents Æneas preparing to carry off his aged father Anchises from the burning city of Troy, accompanied by his own wife Creusa, and his son Ascanius. This subject has been represented with various success by Raphael, the Caracci, Sebastian Ricci, and others. In the present picture, the family of Æneas, brought together by the common calamity, form a single group in front of their house. Anchises, enfeebled by age and sorrow, has just seated himself on the shoulders of his son, which are covered with the skin of a lion; and receives from the hands of the sorrowful Creusa, who stands on the steps of the portico, the exiled gods of his house. The young Ascanius with one hand presses affectionately the hand of his father, and with the other seems to indicate, by the divine inspiration, "the obscure way" which their protecting goddess willed them to take. The composition of this fine group, and the truth and vivacity of the expressions exhibited, are equally admirable. The looks of Æneas directed towards his father, his wife, and his gods,—the deep dejection of the old man—the emotion of the boy—and the noble head of Creusa—claim especial notice; but, indeed, there is nothing in the whole composition, design, or expression, unworthy of the great name of Domenichino.

The picture was bought by the Marshal de Créquy, the French ambassador at Rome, while Domenichino was still alive and struggling with his misfortune at Naples. The man who sold it, in order to obtain a higher price, said it was a work of Louis Caracci. After the death of the marshal the painting was bought by Cardinal Richelieu, who bequeathed it to Louis XIII., since which it has remained a part of the royal or national collection. Our wood-cut is taken from the 'Musée Français,' from which also the above account of the picture is drawn.

High Lights.—Speaking of philosophers who write laws for imaginary commonwealths, Bacon says,—"Their discourses are as the stars, which give little light because they are so high." This admits of a more extensive application.

First Use of the Gallows in the Sandwich Islands.—Among the proofs of advancing civilization in the Sandwich Islands the erection of a temporary gallows may be mentioned. The occasion is worth relating. The crime of murder was committed by two of the natives on the person of a Spaniard, and merely for the sake of the clothes he wore. They were taken immediately after, and confined to the fort, whence one of them contrived to escape. They were at first at a loss how to deal with the remaining culprit, but were persuaded by the consuls and the missionary to proceed according to European law. A gallows was in the first instance constructed. It consisted of a rope extended from one cocoa-nut tree to another, eighteen feet from the ground, and to the centre was attached a block, through which was run the halter by which the criminal was to be drawn up by the natives. The man was brought to trial under this gallows, where the chiefs and native missionaries were assembled. While these were deliberating, and doubting the propriety of hanging him, the natives, anxious perhaps to witness so novel a spectacle, put the noose over his head, and saved the judges all further trouble on this subject by running him up. Some time after this, his accomplice, thinking that all was forgotten, ventured to return from his place of concealment to his own home. He was, however, apprehended, and again confined in the fort, where he remained during our stay. As the chiefs cannot be made to understand why two men should suffer for the murder of one, it seemed very probable that this man would ultimately be set at liberty.—*MS. Journal of a Voyage.*

A CHINESE POEM.

THE Chinese take a passionate delight in their poetry, such as it is. To describe it would be a labour of some length, and foreign to our present object, which is merely to present to our readers a curious specimen, and to show them how a native of China judges and speaks of London.

The Chinese have poems on almost every possible subject. History, chronology, moral maxims, the laws and precepts of Confucius, agriculture, gardening, and all the peaceful arts, are conveyed and impressed on the memory through the medium of poetry. In their more refined society not to be a poet is, not to be a gentleman; and the love, if not the practice, of the poetical art descends to all grades and conditions.

It is a pleasing fact, that at the moment we are introducing a Chinese poet and his description of London to our readers here, some of the stereotyped plates of our 'Penny Magazine' are on their way to China, and will soon be introduced and circulated *there*! Arrangements have been made to publish a cheap periodical work at Canton, and our plates, which by the improvements of modern art can be multiplied almost *ad infinitum*, and without any deterioration of their quality, are to be used for the embellishment of that work. Thus the prints, which now circulate by the banks of the Thames, the Clyde, the Shannon, and the St. Lawrence, will also engage attention on the shores of the Chinese sea, on the banks of the Pei-ho, and the grand canal which traverses the empire to the length of 1800 miles! Putting aside our own feelings of self-satisfaction in having contributed to this end, we cannot but think that there is something consoling and great in this fact. It is a step towards bringing the people of the remote ends of the earth together, and giving at once unprecedented extension and durability to the conceptions and works of European artists. By these means a new world may be opened to departed and living genius. A Raphael may shine with a bright though necessarily diminished splendour, in immense empires where not a ray of his genius or a glimmer of his fame have hitherto penetrated. And may we not be allowed to hope that the Chinese, whose manual dexterity as painters, and industry and fidelity as copyists, are very remarkable, may gradually elevate their taste, and correct their notions of drawing and composition, by studying and imitating our carefully-selected engravings? We cannot, it is true, give them the charm of colouring and the graces of high finish, but these are not the lessons they most want. However much or little they may profit by the important parts of graphic instruction that can be conveyed in wood-cuts, one thing is certain,—it is this:—with their strong predilection for copying and multiplying the works of art that are conveyed to them from Europe, the Chinese will not fail to decorate the interior of their houses with imitations of some of the more striking productions of the great masters that we have given and shall give them. But our love of art, and anxiety for its diffusion, are leading us astray from our present business with poetry.

For the Chinese specimen we shall now proceed to give we are indebted to John Francis Davis, Esq., who introduced it in an interesting paper, 'On the Poetry of the Chinese,' which he published in the second volume of the 'Transactions of the Royal Asiatic Society.'

Mr. Davis informs us that the poem was written by a Chinese of good acquirements and respectable station in life, who accompanied an English gentleman from the East to London, about the year 1813. In 1817 the 'Quarterly Review' gave a short notice of this curious production, "of a native of the remotest shores of Asia who sings the glories of the British capital,"

but Mr. Davis was the first to give us the whole of the poem translated, and accompanied by the original Chinese text. "Being a simple description, the poem," says Mr. Davis, "contains but few flights of fancy; and as it would be a hopeless attempt, however well they may sound in Chinese, to give dignity in verse to matters so perfectly domestic and familiar to ourselves, it has been judged best to give a literal prose translation."

The Chinese title is, 'London, in Ten Stanzas.' The stanzas of the poem are regularly constructed, and all of the same form and length. We now beg attention to the English version, in which we have put some of the more curious passages in italics. The mistakes, the false deductions, and the Eastern hyperboles of the traveller, will not be found the least amusing parts of his description:—

I.

AFAR in the ocean, towards the extremities of the north-west,
There is a nation, or country, called England:
The climate is frigid, and you are compelled to approach the fire.
The houses are so lofty that you may pluck the stars:
The pious inhabitants respect the ceremonies of worship,
And the virtuous among them ever read the sacred books:
They bear a peculiar enmity towards the French nation,
The weapons of war rest not for a moment (between them).

II.

Their fertile hills, adorned with the richest luxuriance,
Resemble, in the outline of their summits, the arched eye-brows (of a fair woman):
The inhabitants are inspired with a respect for the female sex,
Who in this land correspond with the perfect features of nature:
Their young maidens have cheeks resembling red blossoms,
And the complexion of their beauties is like the white gem:
Of old has connubial affection been highly esteemed among them,
Husband and wife delighting in mutual harmony.

III.

In the summer evenings, through the hamlets and gardens beyond the town,
Crowds of walkers ramble without number:
The grass is allowed to grow as a provision for horses,
And enclosures of wooden rails form pastures for cattle.
The harvest is gathered in with the singing of songs:
The loiterers roam in search of flowers without end,
And call to each other to return in good time,
Lest the foggy clouds bewilder and detain them.

IV.

(This verse is merely descriptive of our theatres. It mentions that they are closed during the day and opened after dark. This struck the author, as in China theatrical amusements take place by daylight.)

V.

The two banks of the river lie to the north and south;
Three bridges interrupt the stream, and form a communication;
Flocks of every kind pass between the arches,
While men and horses pace among the clouds:
A thousand masses of stone rise one above the other,
And the river flows through nine channels:
The bridge of Loyang, which out-tops all in our empire,
Is in shape and size somewhat like these.

VI.

It is a rich, populous, and highly-adorned land;
Its workmen vie with each other in the excellence of their manufactures.
Within the circuit of the imperial residence is a splendid palace:
Lofty trees are immingled with unnumbered dwellings.
The young gentry ride in wheel-carriages and on horseback
And the fair women clothe themselves in silken garments.

* * * *

VII.

The towering edifices rise story above story,
In all the stateliness of splendid mansions:
Railings of iron thickly stud the sides of every entrance,
And streams from the river circulate through the walls:
The sides of each apartment are variegated with devices;
Through the windows of glass appear the scarlet hangings:
And in the street itself is presented a beautiful scene,
The congregated buildings having all the aspect of a picture.

VIII.

In London, about the period of the ninth moon,
The inhabitants delight in travelling to a distance;
They change their abodes, and betake themselves to the country,
Visiting their friends in their rural retreats.

The prolonged sound of carriages and steeds is heard through the day:

Then in autumn the prices of provisions fall:
And the greater number of buildings being untenanted,
Such as require it are repaired and adorned.

IX.

The spacious streets are exceedingly smooth and level,
Each being crossed by others at intervals:
On either side perambulate men and women,
In the centre career along the carriages and horses:
The mingled sound of voices is heard in the shops at evening,
During mid-winter the heaped-up snows adhere to the pathway:
Lamps are displayed at night along the street sides,
Whose radiance twinkles like the stars of the sky.

X.

The climate is too cold for the cultivation of rice,
But they have for ages been exempt from the evils of famine:
With strong tea they immingle rich cream,
And their baked wheaten bread is involved in unctuous lard.
Here excellent meats are served in covers of silver,
And fine wines are poured into gem-like cups:
The custom of the country pays respect to the ceremony of meals,
Previous to the repast they make a change in their vestments!

Such is the Chinese description of our great metropolis. The translator observes:—"His remarks are, as might be expected, confined exclusively to things which at once strike the eye, and they do not extend to the remoter points of intelligent investigation, since the author's very limited knowledge of our language, and total inability to comprehend the nature of our institutions, placed such higher objects entirely out of his reach."

Ought not the errors into which he falls be a warning to English and other travellers, who, as ignorant of the language and institutions of China as this Chinese was of those of England, not only venture to describe what they see, but to give an account of the manners, customs, laws, religion, and moral character of the mysterious subjects of the Celestial Empire?

From the things so highly extolled in certain passages of the poem, we may conclude that the same kinds of things are very inferior or altogether wanting in China. An Italian, a Frenchman, a German, a native of Edinburgh, would certainly not be struck with the great elevation of our London houses; but the Chinese says, they "are so lofty that you may pluck the stars,"—because dwelling-houses in China are very low. This fact and others are confirmed by every European traveller in the Celestial Empire. The manner in which the poet describes the bridges across the Thames, (before the Southwark, the Waterloo, and the New London were in existence,) leads us to suspect that the Jesuit Missionaries must have been guilty of exaggeration in their descriptions of the splendid and lofty marble bridges of China. Again, from the mode in which he speaks of our convenient pavements, or foot-paths, with horses and carriages running along between them in the middle of our crowded streets, we must be disposed to credit those who tell us that such conveniences are unknown in Chinese cities. In this last respect many of the countries of continental Europe are as badly provided as China. The regular stay-at-home Englishman loses the sense of half of the advantages he enjoys from his constant familiarity with them. It will be difficult to make a Londoner feel the full value of the smooth, neatly paved pathways over which he walks every day, and has walked every day ever since he could walk at all. And yet, taken collectively, the pavements of our capital are an astonishingly great work,—one of the greatest and best, indeed, ever executed by human industry, if we consider the uses to which it is applied, and the comfort it affords to the great body of the people.

We hope the poetical diction of our Chinese, who says that streams from the river circulate through the walls of our houses, will not render obscure the simple meaning, which is, that our dwellings are plentifully

supplied with water through pipes laid on by the Thames Water-Works, the New River, and other companies. This is another inestimable advantage which not the Chinese only, but many other nations, do not possess in equal perfection with ourselves, and which we too often overlook because we of the present generation have always been in possession of it. Fully to appreciate it, let the rich man think of the inconvenience of buying water by the barrel, and the poor man of the more serious annoyance of going himself to the nearest river, or well, or fountain, to procure the fluid indispensable to cleanliness, comfort, and the cooking of his meals. Such was once the case in London, and such it still is in many parts of the world calling themselves civilized.

In 1813, when the Chinese poet was here, the streets of London were lighted with train oil: could he return in these brilliant nights of gas-light, he could not be accused of poetical exaggeration in describing the lamps as twinkling like the stars of the sky;—the lamps put out the stars. In speaking of the habits and moral character of the English, he mentions their frequent reading of the Bible, and gives them credit for their conjugal affection and respect for the female sex. The last point, which is the truest test of civilization, must have struck him forcibly; for in China, as in other countries of the East (almost without exception), women are treated like inferior beings. They are sold to the highest bidder. Their husbands purchase them from their parents, and, as polygamy is recognised by the law, the richer have generally two, three, or more wives, who are all sent to occupy the same apartment, separated from that of the men. They are neither allowed to eat at the same table nor to sit in the same room with their husbands. Under such a domestic system, the deference and respect we pay to the sex cannot possibly exist, and the greatest charm of society must be altogether unknown.

In the same paper of the 'Transactions of the Asiatic Society,' in which Mr. Davis introduces this poem on Europe, written by one who had seen us at home, he gives a slight sketch of another Chinese poem; written by one who had never left his own country, and who judged of us by the specimens of Englishmen, Frenchmen, Portuguese, &c., that he had known, in the way of trade, at Canton. The author of this latter production, which is entitled "Unconnected Stanzas on Europeans," was a Hong merchant,—a member of an appointed privileged body which, according to law, has the exclusive right of dealing with the Christians at Canton. He says, that after an intercourse of thirty years with the foreigners, he ought to know something of their peculiarities. Relying on his knowledge, he states that—"They (the Europeans) make use of no formality in their most extensive bargains more solemn than a mere shake of the hand. But," says the self-satisfied Chinese in the next verse, "the simple virtues of barbarians have been the subject of praise from the oldest times." Though he measures us by his own country's standard, and calls us barbarians, the old Hong tea-broker is evidently not disposed in his own mind to treat us with severity.

He informs his countrymen, for the enlightenment of whose ignorance the poem was produced, that, among the foreigners, when a guest arrives, the host helps him with his own hand to the juice of the grape,—that they welcome visitors with wine, and not with tea, as is the fashion of the Chinese,—that they consider touching glasses in drinking as a token of friendship,—that in winter evenings they sit by the fire and swallow cold wine, heedless of the snows which lie deep beyond the door; (the Chinese, we must remark, always warm their wine,)—that on the first day of their year

they powder their heads with white dust, and all get tipsy, though of late years this habit has worn out,—that they make light of their lives, for when two of them quarrel, they stand face to face, and discharge fire-arms at each other on a given signal, in order to show that they are not afraid, and so forth,—and finally, that their different nations have been fighting together for some twenty years, though now it is to be hoped that they will soon make peace with one another, and have all an opportunity of improving themselves by intercourse with the more civilized Chinese! (The poem was written during the last war.)

The author is much puzzled to account for the comparative late marriages of Europeans,—but at last he hits upon the reason. He says, their distant voyages keep them long abroad, and that they never return home and take a wife until they are grown rich. "Many," he adds, "do not marry before fifty years of age; and if the bride be very young on these occasions, it is no scandal."

To enter into our Hong poet's wonderment on this head, our readers must remember that, in China, where everything is legislated for, and nothing left to individual liberty or inclination, the laws direct every man to take a wife, and at the time fixed for him he takes one.

Appearances.—Many false things have more appearance of truth than things that be most true.—*Latimer.*

Knowledge.—Knowledge may not be as a courtesan, for pleasure and vanity only; or as a bondswoman, to acquire and gain for her master's use; but as a spouse, for generation, fruit, and comfort.—*Baron.*

Every branch of knowledge which a good man possesses he may apply to some good purpose.—*C. Buchanan.*

Esquimaux near Cape Lisburn.—The men exhibited their skill in archery, which, however, did not equal what we had been prepared to expect: they excelled more in slinging stones, with which they would frequently hit a bird on the wing. Another method, however, was practised in catching birds. This was by means of a number of ivory balls, each attached to a piece of string about six inches in length, the ends of which are all tied together. This missile is whirled round until the balls get a rapid circular motion, and is then launched forth at the birds, which get entangled among the lines. From the surprise they testified at the deadly effects of the fowling-piece, it appeared that they were previously unacquainted with it. The first shot unfortunately missed, and they were quite at a loss to account for the apparently useless noise, or for the cause which produced it, and which they naturally enough looked for in the barrel of the piece. At the second shot the bird fell, and they appeared equally pleased and surprised, uttering an universal shout of "kee!" We were also treated with the native dance, which displayed little activity, and consisted more in motions of the hands than of the feet; the latter were kept close together, taking occasional jumps, while with the arms a continual swinging motion was maintained. Their small eyes being generally closed during the dance, gave them a most sheepish look. The vocal music to which they danced was accompanied by a tambourine of sonorous tones, beaten on the rim with a stick. * * * We had before observed the badness of their teeth, which were worn down, especially in the women; nearly to the gums; and we now learnt that this was occasioned by their chowing the skins. This is the method by which they dress them; and, with some exertion of the jaws, the process is certainly as well, though not so conveniently, performed as by English curriers.—*MS. Journal of a Voyage.*

* * The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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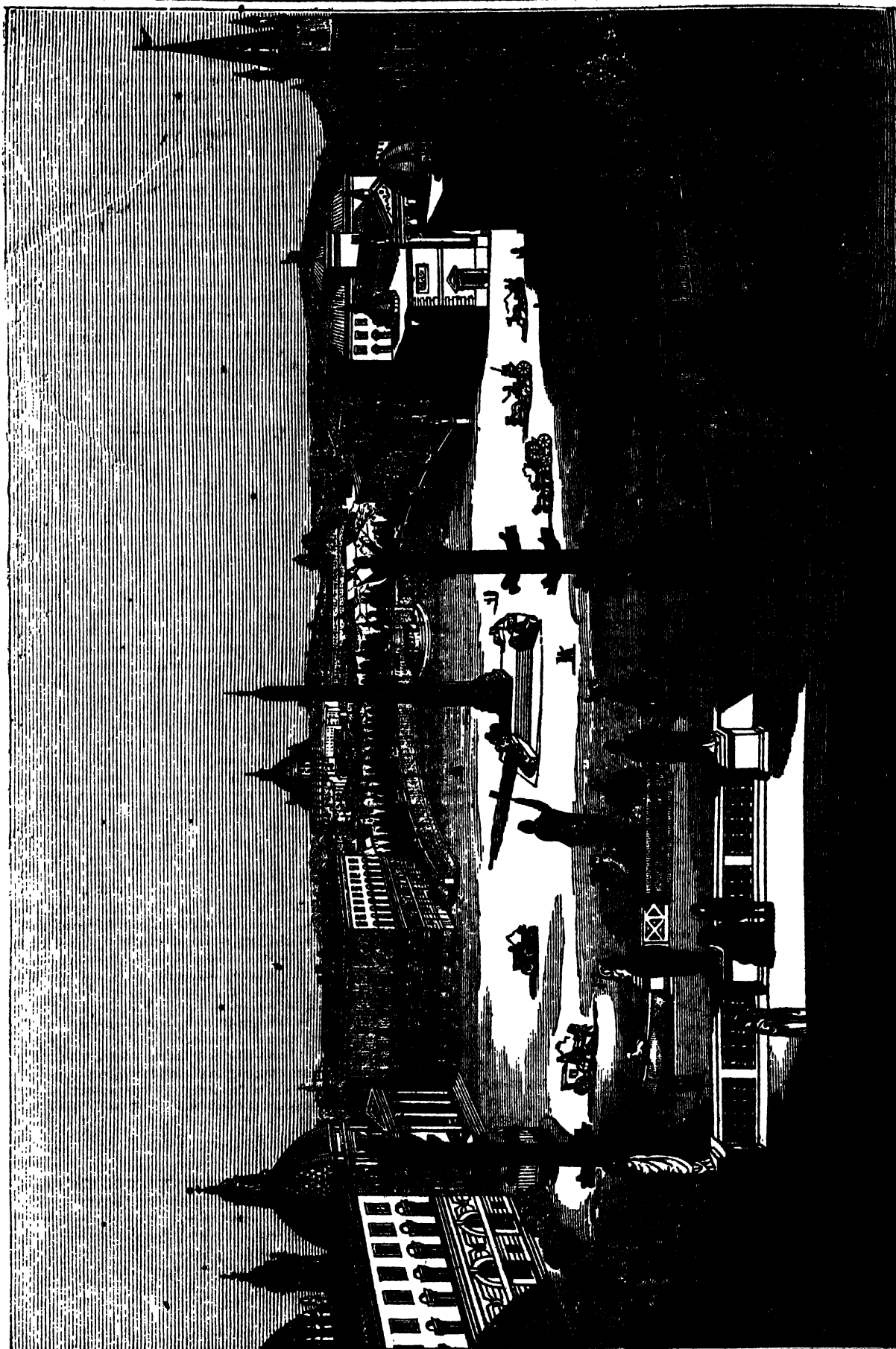
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[View of the Piazza del Popolo from the Fucian Hill.]

ROMAN PIAZZE, OR SQUARES.

IN Rome, where most of the streets are narrow and crooked, the number and size of the open squares produce a most agreeable effect. These squares are generally adorned with ancient Egyptian obelisks, or splendid fountains, and in some cases with both. Several of the finest of modern churches and palaces are situated on these free spaces, while others contain ancient temples, columns, and majestic ruins. Indeed there is scarcely one of the Roman piazze but offers some beautiful or otherwise interesting object, either ancient or modern, to the admiration of the spectator.

The Piazza del Popolo, or "Square of the People," represented in our engraving, is the first seen by the traveller arriving from the north, and though far inferior in architectural and antique treasures to several others, it is well entitled to attention. Having the advantage of being the first seen by our countrymen, it is generally found to have made a deep and lasting impression on them. It may, indeed, be almost called the great entrance into Rome, and is the point whence the impatient eye is first delighted by a vast interior view of the eternal city.

After driving over part of the ancient Campus Martius, through a long avenue of high walls, which prevent the stranger from seeing much of that scene of the military training and exercises of the old Romans, he reaches the Porta del Popolo, or "Gate of the People," which stands upon or near to the site of the celebrated Flaminian gate, which was the great northern entrance of old Rome. The modern gate, though in part the work of the great Michael Angelo, is rather defective and mean. The principal defect arose from the circumstance, that four ancient columns, of insufficient size for the elevation required, were assigned to him for its decoration. The smallness of these columns obliged him to raise the other members of the order beyond their due proportion, and the whole terminated in a deficiency of grandeur. "But this," says Forsyth, "will ever happen, where the design, instead of commanding, is made subject to the materials." After passing the Porta del Popolo, the stranger soon finds himself driving across a fine spacious square. An Egyptian obelisk stands up nobly in the centre,—in a line from it, the great street called the Corso, a mile long from the square to the foot of the Capitol, flanked on either side by a church, opens a direct road into the heart of the city,—palaces and churches present themselves on every side,—the "vast, the wondrous dome" of St. Peter's is seen to the right, and on the left the steep acclivity of the Pincian Hill, in part cut into ornamented terraces, rises from the Piazza del Popolo.

Our view is taken from the Pincian Hill. The terraces, the statues, and the rostra, that form the foreground of the picture, are all modern, and, in part, recent works. The square itself has undergone many improvements of late years. The most conspicuous and interesting object in it is the obelisk, which is one of twelve of those extraordinary masses of granite cut by the Egyptians, brought to Rome by different emperors from Augustus down to Constantine, overturned and buried in the barbarous ages, but recovered and set up for the embellishment of the modern city by different popes. The height of the ancient shaft of the obelisk in the Piazza del Popolo is about 76½ feet, but unfortunately it is not entire,—it has been broken in three pieces. Its whole height, with the modern base and substructure, is about 116 feet. Its sides are covered with hieroglyphics that are partially injured or defaced. It was erected where it now stands in the year 1586, by order of Sixtus V., who was the first of the popes to give attention to these magnificent relics of antiquity. Before erecting this one in the Piazza del Popolo, he had set three other obelisks upright on

bases in different parts of Rome,—viz., one in front of the church of St. Peter, in 1586, (of which a view is given in No. 108 of the 'Penny Magazine';) another in front of the church of Santa Maria Maggiore, in 1587; and the third in the square of San Giovanni Lateranense, in 1588.

The author of 'Rome in the Nineteenth Century,' and several others who have written on the subject without a proper examination of the objects and their history, have strangely confused the obelisk in the Piazza del Popolo sometimes with that in front of St. Peter's, and sometimes with that erected by Augustus in the Campus Martius, and removed thence to Monte Citorio in 1792. The author of the book just mentioned has applied the description of the difficulties encountered in raising the obelisk in front of St. Peter's (a much larger shaft in one entire, unbroken piece, and the first that was raised) to the elevation of this smaller column, which, as we have mentioned, and as is distinctly stated by the architect employed in the work, was broken into three pieces, and consequently infinitely more easy to move and set up. As we recently gave an account of the facility with which a small party of Frenchmen removed an obelisk from Luxor to Paris, it may amuse our readers to show them what a tremendous task,—even when a host of men and horses was employed,—the raising of an obelisk at Rome was considered in the sixteenth century.

The height of the ancient shaft of the obelisk, which now stands in front of St. Peter's, is 83 feet 2½ inches*. When Sixtus V. decided upon erecting it, men stood aghast at the dangers and toils of raising so enormous a mass of heavy stone, and two or three years elapsed in preparation before the work could be performed. The Papal court consulted men of science all over Europe, and numerous plans from architects, engineers, and mathematicians, were sent to Rome from all quarters. At last the plan of Domenico Fontana, one of the successors of Michael Angelo in the works of St. Peter's, was accepted and acted upon.

The day on which the obelisk was to be raised was ushered in with great solemnity. High mass was celebrated at St. Peter's, and the architect and workmen received the benediction of the Pope, who implored Heaven to prosper them in their undertaking. At a given sign engines were set in motion by an incredible number of men and horses, but not until fifty-two unsuccessful efforts had been made did the mighty mass rise from earth and swing in air. The moment it was set upright the thousands gathered to witness the spectacle shouted aloud, the cannons roared from the castle of St. Angelo, and the church bells began to ring all over the city.

According to an old local historian, the raising of this obelisk cost 86,975 Roman crowns; and another old writer says, the work "was terminated in the short space of one year, in 1586." The writer last alluded to describes the machinery and methods employed by Fontana, and also gives an engraving. The engraving is scarcely intelligible, but we see in it a resemblance to the "large beams of wood planted upright, and looking like a forest of machinery," and "the long, thick ropes veiling the sky with a kind of close netting," mentioned by Ammianus Marcellinus in describing the erection of an obelisk at Rome in the time of Constantius, the son of Constantine the Great. The historian of Fontana's exploit says,—“In raising the obelisk before St. Peter's there were forty argani (capstans), to each of which were put four horses, hearty and robust, and twenty men. So that there were 160 horses, and 800 men, for the said argani alone; besides many more men occupied by divers

* With its base, its modern ornaments at top, cross, &c., it measures 132 feet.

other offices, as standing round about the machinery and working above it. And on the top of the huge machine, which looked like a castle, there was a trumpeter, and also a large bell. And the trumpeter, immediately on a sign being made to him by the Capo Mastro, or architect, blew his trumpet, and then all the capstans were worked together by the men and horses; and when they were to stop, the bell was rung. In this manner the orders were understood, and all passed off well; whereas if the human voice had been employed to give the word of command, it would not have been possible to avoid disorder, for the noise was like that of thunder or an earthquake, so great were the creaking, groaning, and convulsion of all the machinery, by reason of so heavy a bulk as the obelisk*."

The same machinery, reduced in force and magnitude, we are informed, served Fontana for the setting up of the obelisk at Santa Maria Maggiore, of that at San Giovanni Lateranense, and of the one in the Piazza del Popolo; and we are expressly told by the architect's biographers that, after his first great task with the obelisk in the front of St. Peter's, he found the erection of the other three comparatively easy work, for they were all broken, and the fragments were raised and adjusted one after the other.

As it now stands with its parts united, the obelisk in the Piazza del Popolo is, in size, next to the obelisks before the churches of St. Peter and St. John Lateran, being higher than the other nine Roman obelisks now erect. The sides of the stone are of unequal width; those on the north and south, which correspond, are seven feet ten inches at the base, and four feet ten inches at the summit. The other two sides or faces of the obelisk, at the same positions respectively, are, at the base, six feet eleven inches, and at top four feet one inch. The northern face of this obelisk has been much injured by fire. Some local writers have settled to their satisfaction that this injury was sustained during Nero's burning of Rome. It may, or it may not have been so, for Rome has been the scene of many a conflagration since then. A much better established fact is, that the obelisk in the Piazza del Popolo is one of two that the Emperor Augustus caused to be transported from Egypt to Rome, and erected in the Great Circus. Pliny says it was first quarried by an Egyptian king, during whose reign the philosopher Pythagoras visited Egypt. This would give the shaft an antiquity of more than twenty-three centuries. Their age, the mysterious country of their origin, the history of their importation into Europe by the conquerors of old Rome, their overthrow by the barbarous invaders of the empire, their re-erection by the popes of modern Rome, the innumerable vicissitudes and tragical changes that have occurred since they were first placed erect in the Circus Maximus, the Campus Martius, or similar spots of renown, all tend to give great interest to these obelisks, which are grand and imposing objects in themselves, and which, moreover, are seen in no other city in Europe. At Constantinople, indeed, there is one which produces but little effect in the large square of the Hippodrome, and in presence of the towering minarets of Sultan Achmet's mosque, and there will now be another erected at Paris; but these solitary specimens are as nothing compared with the obelisk wealth of Rome.

We recommend to such of our readers as may be curious to ascertain the history and objects of Egyptian obelisks, the first volume of 'Egyptian Antiquities,' published in the 'Library of Entertaining Knowledge.' We are not aware of the existence of any account of these works of ancient art which is at once so complete and concise as the one there given.

The Piazza del Popolo, which is now one of the

* 'Roma Antica e Moderna,

busiest and most frequented parts of Rome, was a desolate waste in the middle ages. There is a curious legend told by all the old chroniclers and local historians, which, if it exposes the superstitions of the times, shows also (what it is better to commemorate) the enduring popular horror of cruelty and tyranny. According to this tale, on the spot where the church of Santa Maria del Popolo now stands, there once stood a great chestnut-tree, "under which were hidden the infamous ashes of the Emperor Nero, that were guarded by many malignant spirits, who with divers insults never ceased by night to molest the passengers." "Now, for these reasons, in the year of Grace 1099, the pope, Pascal II., resolved that the said tree should be cast down, and the impious ashes of the wicked king be taken up and scattered to the winds."

Accordingly the Papal court went in procession to the spot, where the pontiff himself was the first to strike the tree with an axe. The tree was then utterly destroyed and rooted up, and the ashes of the tyrant, or what were supposed to be such, were dispersed. A Christian altar was erected over the Pagan's grave, and in process of time the altar grew into a church*.

THE DEATH OF PIERS GAVESTON.

On the edge of the road that leads from Warwick to Coventry, is a knoll now almost covered with trees, which was the scene of one of the most remarkable events in our history. It was on this mount that Piers Gaveston, the favourite of a weak monarch, Edward II., was beheaded. The original name of this place was Blacklow Hill. It is now called either by that name or by that of Gaveston Hill. The murder which was there committed appears to us to present a very appropriate illustration of the fierce and troublesome times, when force was opposed to force, and the conflicts of power had not yet submitted to the sacred dominion of law and justice.

The granting of the Great Charter by King John took place in the year 1215, nearly a century before the execution of Gaveston. The establishment of general freedom, and of legal obligations, in a rude and martial state of society, is generally the work not of a few years, but of whole generations. Though the terms of Magna Charta evidently imply that the great principles of civil liberty were very early developed in England, yet it is evident that the condition of the great body of the people was still slowly improved, and that the crown and the nobility were too often involved in disputes for power, which would not admit of any very decided social amelioration. During the long reign of Henry III. the country was distracted by civil contests; and in the succeeding sway of Edward I. the bold and martial character of the prince was communicated to the age in which he lived; and though many wholesome laws were established, the balance of authority and of interests in our constitution was still very imperfectly exhibited. The vices and frivolity of Edward II. again stirred up the contests between the monarch and the barons. The event which we are about to record shows to what daring extremities these contests would sometimes lead.

Previous to the accession of Edward II. to the throne, in the year 1307, he had submitted himself, with the most blind and obstinate confidence, to the counsels of his favourite, Piers Gaveston. This young man was a Gascon by birth. He is represented by historians to have been possessed of singular personal and mental acquirements;—to have been handsome, active, enterprising, and courageous—and superior in spirit and talent to the rough and unpolished barons

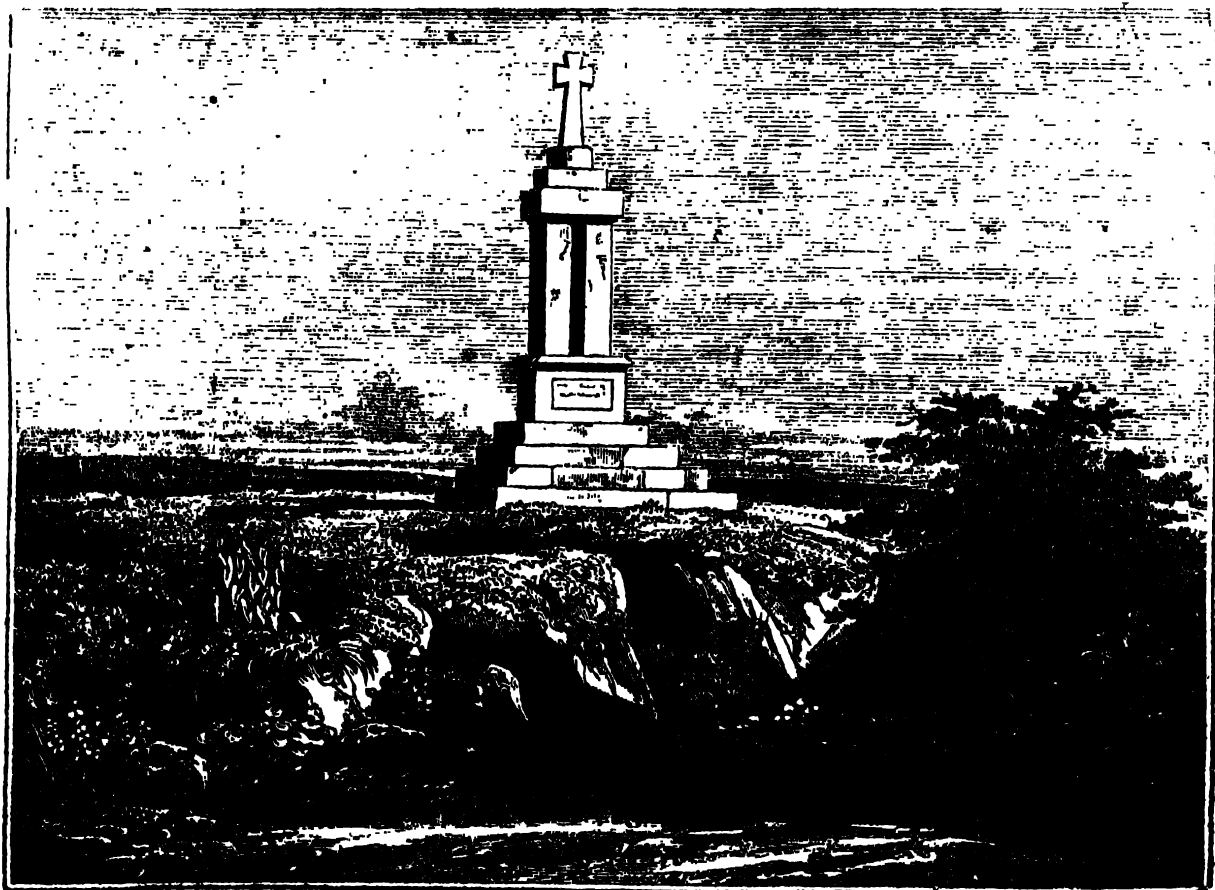
* 'Descrizione dell' Alma Città di Roma,' &c.

of the English court. But he was notoriously unprincipled and profligate, and his pride and ambition were altogether of the most extravagant character. During the life of his father, the young Prince Edward had exhibited marks of a vicious and dissolute disposition. He had incurred the displeasure of the king by his irregularities; and his crimes being ascribed to the evil suggestions of Gaveston, the companion of his vices was banished the kingdom. The first act of the accession of Edward II. was to recall his favourite, and to load him with fortune and honours. He made a grant to him of the whole estate belonging to the earldom of Cornwall; and also bestowed upon him a sum of money, which, in the currency of our own days, would appear to exceed the most extravagant donations of the most thoughtless and luxurious princes of antiquity. Gaveston soon acquired an unbounded influence over the weak king. He removed all the high and responsible officers of the court from their stations, and filled their places with his dependants. He procured himself to be appointed Great Chamberlain of the kingdom, and he became, indeed, the sole ruler of the English dominions. The monarch bestowed upon him his own niece in marriage; and consummated the greatness of his favourite by appointing him guardian of the realm during a voyage which he made to France. Had Gaveston possessed the greatest discretion, it is probable that these honours would have excited the utmost jealousy amongst the English nobles. But he was vain and presuming; and his pride and insolence laid the foundation of an enmity, as extensive as it was bitter and unrelenting.

The unbounded power and ostentation of Gaveston soon called forth the fierce and uncompromising spirit of the barons. They demanded of Edward the banishment of his favourite. The king tampered with their claims;—and it soon appeared probable that the sword would decide the controversy. The barons solemnly

demand in parliament that Gaveston should be expelled the kingdom—the clergy denounced him excommunicated should he continue in the island. The king at length appointed him lord-lieutenant of Ireland, assigned the whole revenue of that kingdom for his subsistence, and attended him to the place of his embarkation.

In a very short period, Edward, being impatient for the return of his favourite, prevailed upon the Pope to absolve Gaveston, according to the wretched superstitions of those days, from the oath he had taken to leave the kingdom for ever. The sentence of excommunication was also suspended. At the parliament which followed, the king induced the nobility to consent to Gaveston's recall. But the favourite had not learned prudence. The barons came armed to parliament;—and having a popular subject of complaint against the king, they succeeded in compelling him to authorize a commission for regulating the affairs of the kingdom. The monarch proceeded to the Scottish war against Robert Bruce, accompanied by Gaveston, but his enterprises were not eventually successful. Edward returned to England. The commission which he had authorized had formed many salutary, though, perhaps, extreme and unconstitutional, regulations for the restriction of the royal prerogative. One of the articles particularly insisted upon was the banishment of Gaveston. The king was compelled to yield, and his favourite left the realm, and for some time resided at Bruges, with all the splendour of a sovereign prince. The next year (1312) he ventured to return to York. The barons almost immediately took arms, under pretence of holding tournaments. They suddenly united their forces, and proceeded to attack the king at Newcastle. The unhappy monarch fled with precipitation; and Gaveston secured himself in the fortress of Scarborough, then one of the strongest holds in the kingdom. A detachment of the baronial army immediately invested



[Blacklow Hill, near Guy's Cliff]



[Guy's Cliff Warwickshire.]

that post. Gaveston stood several assaults with great bravery;—but, dreading to exasperate his enemies, he at length capitulated to the Earl of Pembroke, on condition of being kept in safe custody, while the barons should deliberate on the disposal of his person; and if he should not agree to their terms, that he should be placed in the same posture of defence which he resigned. The barons in authority pledged themselves to this treaty, on pain of forfeiting all their possessions. The Earl of Pembroke proposed to convey his prisoner to his own castle at Wallingford, but left him, during one night, at Deddington Castle, near Banbury. Guy, Earl of Warwick, the implacable enemy of Gaveston, immediately seized upon his person. He bore him in triumph to Warwick Castle, where the Earls of Lancaster, Hereford, and Arundel, repaired to hold a consultation about their prisoner. His fate was speedily decided. He was dragged to Blacklow Hill, about two miles from Warwick Castle, where he was beheaded amidst the scorn and reproach of his implacable and perfidious enemies.

On the top of Blacklow Hill there has for some time been a rude stone, on which the name of Gaveston, and the date of his execution, are inscribed. A few years ago, the possessor of Guy's Cliff, an adjoining mansion, distinguished for its picturesque situation and romantic grounds, erected the cross which is represented in our wood-cut. It bears the following inscription:—

IN THE HOLLOW OF THIS ROCK
WAS BEHEADED,
ON THE 1ST DAY OF JULY, 1312,
BY BARONS LAWLESS AS HIMSELF,
PIERCE GAVESTON, EARL OF CORNWALL;
THE MURDER OF A HATEFUL KING,
IN LIFE AND DEATH,
A MEMORABLE INSTANCE OF MISRULE

As we have here sat, looking with delight upon the beautiful prospect which this summit presents, we could not avoid contrasting the peacefulness and the fertility that were spread around, with the wild appearance that

the same spot must have presented at the period of lawless violence which we have described. Beneath our feet the Avon was gliding in tranquillity and loveliness, pursuing its silent course through plenteous fields, or by elegant villas—now ornamenting the mansion of the noble, and now bestowing its beauty upon the cottage of the peasant. When Gaveston fell, it flowed amongst sterile cliffs, or through barren plains—for equal laws had not then bestowed upon industry the blessing of security;—the labourer worked for a severe task-master, and the possessions of the yeoman were under the control of a tyrannical lord. In the distant prospect we saw the lofty towers of Warwick Castle rising above the woods in ancient magnificence. When Gaveston perished, they were the scenes of many a midnight murder, and many an ignominious torture. Here had been the rude pomp, the fearful counsels, and the tumultuous passions, of the feudal days. The pride, and the devices, and the ambition of those times were now only “to point a moral, or adorn a tale.” The towers of antique splendour indeed remained;—but they were associated with the beauties of modern adornment; and the hand of taste had arrested the slow ravages of time, to preserve those memorials of past generations, whose records should teach us how much we have gained in intelligence and in happiness.

The preceding vignette represents the beautiful mansion of Guy's Cliff, which possesses many attractions for the curiosity of the traveller.

THE MOUNDS OF THE TIGRIS.

From the city of Bagdad to the town of Korna, which is situated near the point where the Tigris joins the Euphrates to form the river of the Arabs (Shat-ul-Arab), the distance is upwards of two hundred miles. Over this large space, near one of the two finest rivers of Western Asia, the Arabian pitches his tent, or fixes his hut of reeds, and there is only one poor mud-built village (Koota Ammarah) to indicate the existence of

men less erratic in their habits of life. Yet in former times this country was the centre of Babylonian, Persian, Greek, and Moslem empires, to which all lands, from the Mediterranean to the Indus, brought their tributes, and from thence the orders of the "king of kings" proceeded daily to some of the "hundred and twenty provinces" of his mighty empire. The river was thronged with boats, barges, and argosies, while its banks were lined with cities and towns, gardens, temples, and palaces, and its breadth was spanned by bridges, the hard-embodied masses of which remain like rocks in the river to this day. When one considers this, and imagines the activity which resulted from the immense population in this now desolate region—the hum of the multitude, the trampling of horses, and the rattle of chariot wheels—he is induced to look around and inquire what indications this great and ancient people have left upon the earth of their existence. The inquirer, who is accustomed to look for an answer to such a question in shattered walls, broken columns, and prostrate capitals, will, except in one solitary instance, find no such indications. It is for this reason, perhaps, that the remains of cities and people, and their works, with which the land is covered, have hitherto obtained little notice from travellers. All the great cities of the Tigris and Euphrates,—Nineveh, Babylon, Ctesiphon, Seleucia, each the capital of an empire, with other cities of inferior note,—are covered, as it were, by their own ashes, on which no green thing takes root, and lie in shapeless heaps; beneath the surface of which are found sun-dried and kiln-burnt bricks, fragments of marble, broken glass and earthenware, and sometimes coins. The sepulchral mounds, which are not always distinguishable externally from the others, furnish in addition, vases, urns, and human bones. Besides these, which appear in the form of numerous detached mounds of different sizes and forms, there are others extending in lines, and stretching far away in all directions. These form parts of a most magnificent system of aqueducts, by which the country was watered and rendered so amazingly fruitful as it is reported to have been under the rule of its ancient kings. By these different classes of mounds the country is, in fact, covered, and when the mind has once been directed to them as objects of interest, their recurrence is so frequent as to fatigue the most zealous attention. They concur—everything concurs—to show how exceedingly populous, in former times, was this old historical country, where now a few miserable Arab camps, at distant intervals, and a few occasionally cultivated spots, are the only remaining representatives of its ancient population and productive wealth.

It is surprising, indeed, that so many of those mounds, which furnish kiln-burnt bricks, remain, considering how long and to what extent they have been drawn upon to furnish materials for other sites, which have been less lasting than their precursors. The ancient Bagdad, for instance, was built with the bricks of Ctesiphon. It is at this day a popular tradition, that the Khalif Al-Mansoor was about to demolish the remarkable building called the *Tauk-Kesra*, at Ctesiphon, for the sake of its materials, when he was induced to spare it by the consideration that the rent in its arch, which is devoutly believed to have been made at the birth of Mohammed, would render it an enduring witness to the truth of Islam. The building, therefore, remains to the present time a singular feature among the ancient monuments of the country.

The bricks of these countries at present are oblong, like our own; but those of the ancient remains, whether kiln-burnt or sun-dried, are of a square form, the average size being about a foot, and the thickness varying from two and a half to five inches. The sun-dried are usually the largest and thickest. They are made

of clay, which we ascertained to have been, in some instances, kneaded with straw, which retained its colour and freshness after the lapse of thousands of years. The straw was, of course, used for the same purpose with the hair which our plasterers mix up with their mortar—that of binding the parts together. Dr. Shaw makes a similar remark on the bricks of Egypt; and Philo, in describing the oppression of the Israelites in that country, expressly mentions that the straw, the duty of collecting which so annoyed them, was not for the purpose of burning the bricks, as we should be apt to imagine, but to be employed in the formation of the brick itself—"because straw is the bond by which it is held together." This was, however, not the case with all, or indeed the greater part, of the sun-baked bricks that came under our notice; but was first observed while examining the stupendous walls of what appeared to have been a fortress at Ctesiphon, where we also noticed layers of reed between those of brick: a circumstance which is, we believe, perfectly singular. Like the straw in the bricks, the reed retained its colour and freshness in perfection.

It seems not a little singular that the mass of wall to which we have been alluding had manifestly been applied to sepulchral uses, although in design and construction as much as possible remote from the properly and exclusively sepulchral tumuli met with in the vicinity. But the occurrence every where of human bones and sepulchral vases, added to the testimony of the '*Desatir*,' seems to prove beyond question that in ancient times most of the public buildings of the country had, within their mass, receptacles of various kinds for sepulchral uses. In mentioning such a practice, it should not be forgotten that all which might seem repulsive or noxious in it is removed by the consideration that only the bones were thus deposited, the interment of the body in its entire state not being a usage of the country.

But although traces of sepulture were so abundant, we were not prepared for the remarkable display which the eastern bank of the river in more than one part exhibited. It appeared as if the stream had gone through and made a section of a cemetery, for the perpendicular face of the bank seemed composed of sepulchral vases (about two feet long and ten inches in diameter), closely packed in all positions, while loose bones were also abundantly displayed in the spaces between the urns. Higher up the river than this, about six miles below *Shenat el Taj*, the bank in the same manner exhibited a very singular and unrecorded mode of sepulture. We found imbedded in it perpendicularly a series of rings, of light yellow pottery, about two feet in diameter, and eight inches in depth; forming, by their superposition, a hollow shaft many feet deep. This was in all cases filled with a light, friable, greyish earth, and various pieces of human bone, while the external clay was tenacious and red. Most of these shafts were surrounded by pieces of broken pottery, which appeared to have been wedged in for the purpose of strengthening and supporting the series of rings, which were merely placed upon one another without cement.

It is very probable that some of the mounds so abundantly spread over the country have been gradually formed on the nucleus afforded by the ruins of some great public buildings, for in some of them, which have been deeply indented by water-courses, angles and piers of masonry distinctly appear. But it is also certain that many of the mounds, more particularly those which are most conical, were especially and exclusively employed for cemeteries, and from the multitude of vases which they contain, that they were not the peculiar sepulchres of great men, but public cemeteries; and in considering some of these mounds, particularly those of

Ras Bu Himar, it struck us that the mounds were formed by the gradual superposition of successive layers of sepulchral urns, with layers of earth between. The vessels in which the bones are found are of various forms and dimensions even in the same mounds. The difference of form, not impossibly, indicates difference of sex or station. A very usual form is not unlike that of the jars in which grapes are yearly brought to this country; but sometimes they are oval, and occasionally they are oblong, cubical coffins. They differ also in fineness and colour of clay; but in all cases they are coated internally with bitumen.

On most of the mounds, whether sepulchral or not, the washing away, by rain, of the finer particles of soil and debris from the surface, leaves exposed an immense variety of small pieces of pottery and glass, as well as larger fragments of domestic and other vessels. Some of the finer unglazed pottery has ornamented rims and inscribed figures; and in the glazed, the colours, of every imaginable tint, are often so bright and beautiful that, were it not for the sepulchral vases lined with bitumen, for other glazed earthenware much worn, for pieces of glass of different colours but become rough and opaque, and, above all, for the ancient coins which are sometimes found in these sites, it would be hard to believe that they were portions of utensils ministering to the use of man at a very remote period; but as we were constrained to feel that they were such, the fragments were regarded by us with interest as memorials of the arts which ministered to the convenience of life in a far-distant age.

These remains of antiquity are, in some parts, venerated by the Arabs as having been honoured by the presence of their holy men. The result of this feeling is, that it is not unusual to see the grave of an Arab upon these mounds, and particularly of children. Over their graves they pile large pieces of slag, of which there is usually plenty near such sites, to prevent the jackalls from molesting the corpse. It struck us altogether as a very singular association.

We may mention, in conclusion, that our explorations among these ancient monuments were not pursued without some danger. It was always necessary to be on our guard against the Arabs; and it was not deemed prudent to walk beyond call of the boats without being attended by a guard of armed sepoys and native servants, whose bayonets and sabres served also to pierce and turn up the soil, and formed, in fact, our only instruments for excavating. Nor were dangers from the Arabs the only dangers. In making our researches at Ras Bu Himar, at Shadaif, and at the Bistaun Bint Kesra, we saw the recently-made tracks of lions, and at Shadaif particularly we came upon their retreats,—deep excavations in the sepulchral mounds, around the entrances of which were strewn the bones, horns, parts of the skin and other remains of oxen, sheep, jackalls, antelopes and a camel. On no occasion, however, did the “beast kings” trouble us with their royal notice.

BEARDS.

THERE is more curious and interesting information connected with the subject of beards than might at the first view be imagined; and we shall, in the present paper, state some particulars concerning the growth and culture of that appendage,—the cherished of some nations, the despised of others,—reserving some information relating to *shaving* for a future occasion.

The difference which the beard exhibits in different countries would alone form a curious subject of inquiry. Some have the beard in great profusion, and others are almost entirely without it. This difference is probably the effect of climate and modes of life; for we find generally that, in hot and dry countries, the beard is dark, dry, hard, and thin; whilst in moist and cold

countries it is commonly thick, slightly curling, and light in colour. So also, in all countries, it is the tendency of poor, dry, and indigestible food to render the beard hard and bristly, while wholesome and digestible nutriment makes it soft. Yet to all such general rules there must be many individual exceptions. But it occurs to us as a rule less liable to exception than any other, that the circumstances of civilized life are the most favourable to the development of this appendage. When an exception to this rule is discovered, it will be rather that some bodies of civilized men have meagre beards, not that uncivilized men have full ones. We cannot recollect any savages that are furnished with large beards; but we recollect that those of the Chinese are exceedingly thin, and the Chinese must be ranked with civilized men. We have not, however, the most profound respect for Chinese civilization; and it is, after all, true that they have something more resembling a beard than the nomade people in the north and north-west with whom they are physically classed. But there is perhaps no people, however savage, upon whose chins a few stunted and stray hairs do not appear. It was at one time firmly believed that the North Americans were totally destitute of any rudiments of this natural ornament; an exception was indeed made in favour of the Esquimaux, who manifestly had something like a beard, and who, therefore, must have had an origin different from the other natives of North America. On more patient inquiry into the subject, however, it appeared that the Indians had naturally as much beard as the Esquimaux, but that they were in the habit of uprooting it from its first appearance. We have always great pleasure in stating circumstances which shake such theories as have not been founded on the basis of carefully-ascertained facts. The North American Indians are not the only people who eradicate the scanty supply of hair with which their chins are furnished; and it may be generally stated, that those on whose faces no culture can raise a decent beard, consider the trifle they possess as a deformity of which they are anxious to get rid in the most effectual way they can devise. But in those countries where the hair of the face acquires sufficient development to furnish the semblance of a beard, the appendage is, without exception, regarded as a manly and becoming ornament. We make no exception, because its excision in modern Europe is not from any disrespect to the beard, but in compliance with an usage rendered convenient by the habits of modern civilization; and, in many cases, those indications of a beard which the razor cannot destroy are a source of as much pride as the beard itself among those who let it grow; and among those who have attained to manhood, even the sternest must remember the complacency with which they saw the “down” make its first appearance on their faces.

It would be tiresome to go over the account of the ancient nations which cultivated and prized the beard, for, with the exception of the Greeks and Romans, all other nations appear to have done so. Even in Greece the beard was always worn (except among the Macedonians) until the time of Alexander, and in Rome until the year 300 B. C. In both nations the philosophers and priests retained their beard after it had been relinquished by the body of the people. But among that singular people—the Egyptians—it was the priests that shaved, and they shaved not only the face but the head and the whole body. But they let their beards and hair grow in time of mourning; and so did the Romans when they became a shaven people; while the Greeks, in the time of beards, were accustomed to manifest their grief by shaving. Indeed these opposite signs of mourning may be considered to have prevailed respectively in bearded and shaven nations. On a

similar principle, a beard was a token of bondage among shaven nations, and the want of a beard had the same signification among bearded people. The slaves of the Romans wore their beard and hair long; and when they were manumitted they shaved the head in the temple of Feronia, and put on a cap as a badge of liberty. On the other hand, the Franks, who were a bearded people, when they became masters of Gaul, ordered all bondsmen to shave their chins; and this law continued until the entire abolition of servitude in France. As in the times of the first race of kings the beard was a token of nobility and freedom, the kings themselves were emulous to have the largest beards. Eginhard describes the kings of this race as proceeding to the assemblies in the field of Mars, in a carriage drawn by oxen, and sitting on the throne with very long beards and dishevelled hair.

In what are called the middle ages it appears that beards were generally, although not uniformly, in high esteem. Among the early French monarchs it seems to have been a custom that documents of importance emanating from the sovereign should have three hairs of his beard on the seal. There is still extant a charter of the date of 1121, which declares that it had thus been ratified. We presume this custom expired when such documents became so numerous as to threaten the royal beard with demolition. There are many individual beards the memory of which has come down to our own times, whether from their length and beauty, or from anecdotes of beard-respect connected with them. A few of these we cannot refrain from indicating. Of King Robert of France, the rival of Charles the Simple, in the tenth century, we hardly know which is greatest, the renown of his exploits or of his long white beard, which he suffered to hang down on the outside of his cuirass to encourage his troops in battle and rally them when defeated. At a much later period, the respect in which beards were held by the Portuguese is well illustrated by the romantic anecdote of the brave John de Castro, who, when he had taken the castle of Diu in India, felt himself under the necessity of borrowing a thousand pistoles for the maintenance of his fleet; and, as a security for the loan, sent them one of his whiskers, telling them that, "all the gold in the world cannot equal the value of this natural ornament of my valour, which I deposit in your hands as a security for the money." It is related that the good people of Goa were much affected by this message, and generously sent back both the money and the whisker. About the same period lived the German painter, John Mayo, nicknamed "John the Bearded," on account of his splendid beard. Although he was a tall man, it was of such length that it reached the ground when he stood upright, for which reason he commonly wore it fastened to his girdle. The Emperor Charles V. used to take much delight in seeing this extraordinary beard unfastened, and the wind blowing it against the faces of the lords of his court. Every one has heard of the beard of Sir Thomas More; not that it appears to have been remarkable in itself, but from the anxiety of that distinguished man to preserve his beard, "innocent of treason," from being injured by the stroke which deprived him of life. Most of our readers are doubtless also acquainted with the violent and successful opposition of the Russian peasantry to the attempts of Peter the Great to deprive them of their beards. On all ordinary occasions he was their idol; but when he aimed at the safety of their beards he came to be considered as a tyrant and an enemy, and the formidable opposition excited obliged him to soften into a beard-tax his first firm purpose, either, by fair means or foul, to shave all the nation. The tax was afterwards repealed; and the Russian peasantry to this day retain their beards, and glory in them.

In the same degree that the Europeans are now generally a shaven people, the Asiatics are generally bearded. And as among all Asiatic nations the Persians have the finest beards, and cultivate them with the most care, we shall bestow the remainder of this article upon the beards of Persia.

The Persians in very early times were accustomed to give great attention to their beards. We are informed by Chrysostom, that their kings had the beard interwoven or matted with gold thread; and the accuracy of this information is evinced by the ancient Persian sculptures, which still remain, in which the common beards are curiously and nicely curled, while those of the throned personages are stiff and matted. In the same sculptures other persons who, from the offices they are performing, appear to be slaves or servants, have the beard in its natural state. The beards, even of Persia, have however undergone fluctuations. During the Sassanid dynasty it appears that only mustaches on the upper lip were common. Europeans, who travelled in the country during that period, describe and delineate the Persian face as destitute of beard. Now, however, the ancient zeal for beards has revived; and the king himself has one of the finest ever seen. It reaches below his waist, and is altogether so rich an appendage that it forms an unfulfilling theme of admiring talk among the subjects of the Shah, who seem sometimes to feel that, were other claims wanting, his beard alone would entitle him to reign over men.

The beards of the Persians naturally attain a larger size than those of the Turks, the Russians, or perhaps any other people. They are mostly of a black colour naturally, but the practice of dyeing the beard, either to strengthen the intensity of the natural black, or to give that colour where it does not exist, is universal among all classes. The operation by which this is effected is painful and tedious, and must in general be repeated every fortnight. It is always performed in the hot bath, as the saturation of the hair, which takes place in bathing, enables it to take the colour better. In the first instance a thick paste of *henna* is plastered over the beard; and, after it has remained for about an hour, it is washed away and leaves the beard of a deep orange colour, bordering on that of brick-dust. Then another paste, made from the leaf of the indigo, is applied in the same manner, and allowed to remain for two hours. Throughout all the progress of this operation the man with the beard is obliged to lie on his back, while the dye, more particularly in the latter application, causes the lower part of the face to smart and burn, and contracts the features in a very mournful manner. When the patient first comes forth from the bath, the colour of his beard is a dark bottle-green, which becomes a jet black only after twenty-four hours' exposure to the air. The operation is one of considerable nicety, otherwise the final result may be a purple or a parti-coloured beard instead of a black one. Many of the common people are so much smitten by the fiery red produced by the first application, as to decline to have it changed to black. The meteoric appearance of such beards is very whimsical, nor less so the blue beards which are preferred in Bokhara. All colours but black are, however, considered vulgar in Persia. "It is inconceivable," says Mr. Morier, "how careful the Persians are of this ornament: all the young men sigh for it, and grease their chins to hasten the growth of the hairs; because, until they have there a respectable covering, they are not supposed fit to enjoy any place of trust."

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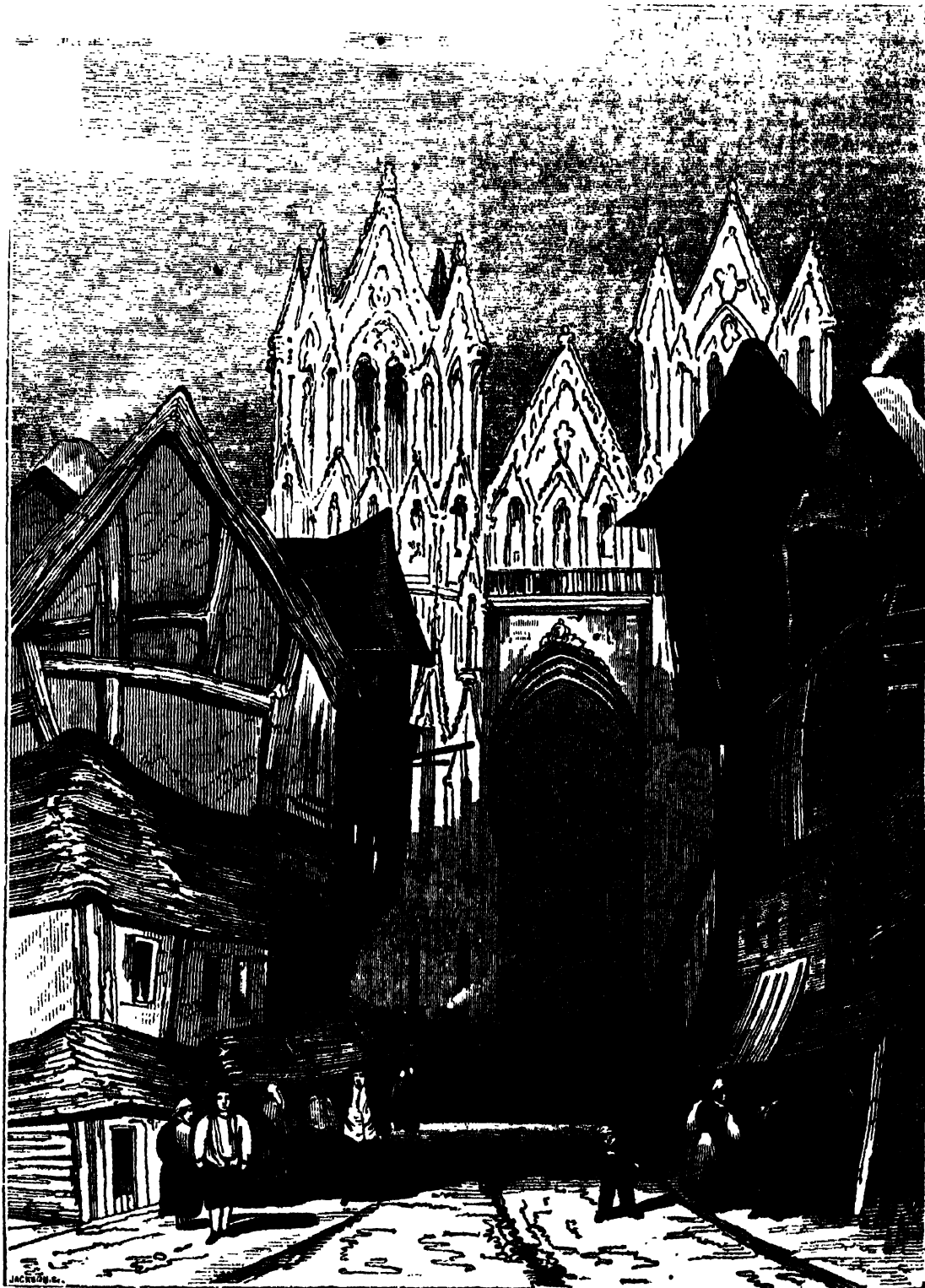
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RHEIMS.



[West Front of the Cathedral at Rheims.]

This large and very ancient city of France is the capital of the department of Marne, in the north-east of that kingdom. It stands on the banks of the small river Vezele, in a plain that in itself presents few attractive features, but which is pleasantly limited in the distance by low hills covered with trees and vineyards. The town, as seen from the declivity of these hills, presents a fine appearance, to which its tall and majestic cathedral not a little contributes. The form of the city is oblong, extending from south-east to north-west, and its circumference is about four miles and a half. It is surrounded by a mound of earth, which is bordered by parapets, and planted on both sides with double rows of trees. This mound overlooks a ditch, which is filled up in many places; and the town is also bounded by a wall. These appendages are not held in any consideration with a view to the defence of the place, its proper fortifications having been demolished in the year 1812.

Access to Rheims is furnished by six gates, all of which present a fine appearance through the shady avenues by which the approach is made. Two of them, the "Porte de Mars" and the "Porte de Ceres," retain their Roman names; and outside the latter there is a suburb of the same name. A very considerable part of the large space inclosed by the walls is unoccupied by buildings, particularly towards the south, where there are immense gardens and spots of naked ground. The closely-built part, which is not one half of the space inclosed, forms a well-determined oval, of which the square called the "Place Royale" may be considered the centre. This "Place" is of a square form, and is, for a French square, large. It is furnished with some very handsomely built buildings, of which the most important is the Custom-house, which occupies all the south side. In the centre of this square there is a fine pedestrian statue, in bronze, of Louis XV., erected in the year 1818, in the place of one that was thrown down and destroyed in 1793. The streets are generally well paved, wide, and straight, with the exception of those in the northern part of the town, where they are nearly all very narrow and tortuous. There are three or four streets remarkable for their width and length; of these that which leads in a straight line across the whole width of the town, from the eastern to the western gate, is mentioned as the finest. The houses are generally built either with chalk-stone or with boards, and are covered with slates. They are seldom of more than one story, and many still display the Gothic gables which surmounted all the façades in former times. A French writer, who seems to have a strong feeling against gables, says, that at Rheims they give to the streets a saddened aspect which singularly harmonizes with, and augments the apparent inactivity and desertion of the streets, in many of which the grass grows in abundance. The city possesses a great number of fountains, for which it is indebted to the canon Godinot. One of them, near the cathedral, preserves his name, and is worthy of notice for its antiquity and its architecture.

Of the public buildings of Rheims the most remarkable, beyond all comparison, is the cathedral of Notre Dame, which is considered one of the finest specimens of Gothic architecture in Europe. It is a work of the twelfth century, and, regarded as a whole, is an exceedingly grand and imposing structure. It is rendered still further remarkable as the building long dedicated to the ceremony of anointing and consecrating the kings of France. The length of the building is 469 feet, its width 97 feet, and its height 114 feet. The west or principal front, which is represented in our wood-cut, is a magnificent work, having a general resemblance to that of the church of Notre Dame at Paris. It has three noble entrances, ornamented with

an immense number of statues, inclined according to the curvature of the pointed arches which compose each entrance. The front is likewise decorated with a mass of bas-reliefs, sculptures, and other ornaments of the most delicate workmanship. Altogether there are between 4000 and 5000 figures sculptured on the exterior of this edifice, of which 400 or 500 decorate the principal portal. Above the middle door there is a large circular window, with another of the same form above it. Each end of the principal front is surmounted by a tower, the height of which from the level of the ground is 260 feet. There are seven flying buttresses between the transept and the end of the nave, and in each buttress there is a niche, or rather a recess with columns, containing a full-length statue. Above the buttresses, upon the top of the principal wall, there is a singularly light balustrade of pointed arches, which appear projected against the roof. At the east end of the cathedral, which is circular, there are quadruple flying buttresses, surmounted by pinnacles. The two gates on the north side of the transept have their fine sculptures in excellent preservation: a third gate appears to have been built up. The interior of this magnificent structure does not disappoint the expectation which the exterior is calculated to excite. There are ten noble Gothic columns in the nave on each side, with two windows between each column. The places in the roof where the groins meet are all gilt, the upper windows in the nave are most beautifully coloured, and the lower part is adorned with twelve pieces of tapestry. In the choir there are ten columns, six of which are circular, and all with beautifully-wrought capitals. The pavement of the choir is much admired, being composed of lozenges of different kinds of marble; it was transferred from the ancient church of St. Nicaise, which is no longer existing. From the same church was also transferred the curious tomb of F. V. Jovinus, who was a citizen of Rheims, and became Roman consul in the year 366. This monument, which is of white marble, presents upon one of its faces an exceedingly well-preserved sculptured representation of a hunting scene. In the north end of the transept there is one of the finest organs in France, over which there is a grand circular window of painted glass, and on the opposite side there is another. Among the other remarkable objects in the cathedral we may mention that the Chapel of the Virgin contains a bas-relief by Nicolas Jacques, and Poussin's fine picture of 'The Washing of the Feet.' There is also a marble font, in which it is believed that Clovis, the first Christian king of France, was baptized. This building was commenced in the year 1211, to replace one that had been burnt down the preceding year; but it was not completed until towards the end of the fifteenth century.

Next to the cathedral, the church of St. Remi is the most interesting building in the town, and forms a very conspicuous object on the approach to it, particularly on the road from Chalons. We shall not undertake to describe it particularly, but may mention that it was remarkable in popular opinion for nothing more than for being the building in which was deposited the famous phial of oil with which the kings were anointed, and which, according to a tradition not yet quite exploded, was brought from Heaven by a dove at the baptism of Clovis. The town has five churches in all.

Rheims possesses a very superb town-hall, which was begun in the year 1627, but only completed in 1825. The façade is decorated with Corinthian, Ionic, and Doric columns, and terminates in two large pavilions, between which another, more light and elegant, surmounts a fine tower. This vast building contains the public library, which consists of 25,000 printed volumes and 1000 manuscripts.

Rheims was a place of importance under the Romans,

and of this fact there still remain some indications. Of these, the ancient names by which several of the streets and gates are still called do not seem the least interesting. The old gate of Mars, which was closed up in 1542, is situated near the new gate of the same name, and although much decayed is still an interesting object. It consists of a triple portico, decorated with eight fluted Corinthian columns: the middle arch is nineteen feet in width, and the other two twelve feet six inches. Writers are not agreed by whom or in whose honour this triumphal arch was erected. At a little distance from the town there is an isolated mound, which is believed to be composed of the rubbish of an amphitheatre.

The city is the seat of an archbishopric, of which the arrondissement of Rheims and the department of Ardennes forms the diocese, and which has for its suffragans the bishops of Amiens, Beauvais, Chalons-sur-Marne, and Soissons. It is, in fact, the ecclesiastical capital of France, of which the archbishop is the metropolitan prelate. This dignity was formerly premier duke and peer of France, and enjoyed the exclusive privilege of consecrating the kings of that country. In the year 1179 Philip Augustus was crowned in the cathedral at Rheims, in the presence of all the peers of France; and from that time, until 1829, when Charles X. was crowned here with great magnificence, all the sovereigns of the country have been crowned in the same place, with only three exceptions,—that of Henry IV., who was crowned at Chartres; of Napoleon, whose coronation took place at Paris; and of Louis XVIII., who was not crowned at all. When Louis Philippe was called to the throne, in 1830, the costly ceremony was abolished altogether.

Among the public establishments of Rheims there are the usual offices of local government, judicial administration, and commercial association. A university was founded in 1547 by the cardinal of Lorraine, and attained some celebrity; but it perished at the Revolution, and is now replaced by a royal college, or high school. There is also a medical school, several schools of mutual instruction, and a botanic garden.

The manufactures of the town consist chiefly of cotton and woollen goods, with hats, stockings, candles, oil, leather, and spiced biscuits and bread. Its traffic with these and other articles, and, above all, with the wines of Champagne, is considerable, and is much facilitated by the excellent roads which connect it with the metropolis and other important towns. The present population of 38,000 is a considerable increase on that exhibited in former years.

Female Ornament in Kotzebue's Sound.—The women have large beads suspended from a perforation in the septum of the nose. When they are inconvenienced by the hanging position of these ornaments, they stow them away in their nostrils.—*MS. Journal of a Voyage of Discovery.*

Chinese Inhabitants of Boats.—The river opposite to the town (Canton) is almost covered with boats of various sizes and descriptions, in the principal part of which the owners, who are of the poorer class, reside. Thousands are born, brought up, and die in these boats, having no more communication with the shore than necessity compels. These boats are covered over in the after-part with a kind of bamboo matting, sufficiently strong and waterproof to keep out the rain, and of length sufficient to allow them to lie down unexposed to sight. These poor creatures, from being confined in so small a place,—accustomed to squat upon their hams, and crawl about their boat,—are generally very awkward in their motions when on their feet. Their male children are taught the art of swimming as soon as they know the use of their legs, until which time they wear a calabash suspended round their necks, to buoy them up in case of their falling overboard.—*MS. Account of the Chinese.*

Making Friends in Otaheite.—In consequence of the early missionaries having reached this place by way of the Cape of Good Hope, they were a day before us in their time; we were, therefore, yesterday (Saturday by our reckoning, and Sunday by theirs) presented with a most striking proof of the alteration in their habits since the time of Wallis and Cook. Not a canoe was seen afloat; but the people cleanly dressed, and the women with bonnets, after the European fashion, were observed returning from divine service, with their psalm-books, &c., under their arms, and proceeding quietly to their homes, after stopping on their way to gaze on the English man-of-war which they had so long expected. But this morning brought to our view quite a different scene. All was bustle. The ship was surrounded with canoes, filled with fruit, &c.; and the men were not a little astonished and hurt when repulsed in the attempt to come on board in the droves that offered. Some few were admitted, and we soon became acquainted with a custom that prevails of each native selecting some one of the strangers for his especial friend. We were not a little troubled by their importunity;—addressing us with, “You my frenny me, mo my frenny you;” and “You my frenny, he is know me.” Those who gave an assenting answer to the proposal were presented with a basket of fruit, or something of the sort, by way of ratification of the treaty. The fact is, that the native thus admitted to friendship becomes the agent to whom the stranger applies for the supply of all his wants. This friendship, however, must be liberally rewarded; and a coat and frilled shirt are most in request.—*MS. Journal of a Voyage of Discovery.*

Vapour Bath in California.—The ‘Temiscal,’ or vapour bath, is worthy of notice: it is a structure of mud, the floor of which is sunk about four or five feet below the surface of the earth, circular, and from fifteen to twenty feet in diameter. Beside the hole for ingress, which has a short passage to check the too ready admission of external air, there is another opening at the top to allow the escape of the smoke from a fire which is kindled in the centre. Around this fire lie the Indians, with their feet towards it, wrapped up in their thick woollen cloths, and thus continue until the whole system is debilitated by excessive perspiration. They then quit their warm lodging, and plunge into a stream of cold water, near which they are careful always to build their Temiscal.—*MS. Journal of a Voyage of Discovery.*

Franklin's Loan.—The following letter was written by Dr. Franklin while at Paris, and was communicated by the person who received it to the person by whom it was originally published:—

April 22, 1784.

I send you herewith a bill for ten Louis-d'or; I do not pretend to give such a sum, I only lend it to you. When you shall return to your country you cannot fail of getting into some business that will in time enable you to pay all your debts. In that case when you meet with another honest man in similar distress, you must pay me by lending this sum to him, enjoining him to discharge the debt by a like operation when he shall be able, and shall meet with such another opportunity. I hope it may thus go through many hands before it meets with a *knave* to stop its progress. This is a trick of mine for doing a deal of good with a little money. I am not rich enough to afford much in good work, and so am obliged to be earning and make the most of a little.

Chinese Women.—Corpulency is deemed a beauty in men, but a blemish in women. The women have usually a peculiarly arched eye-brow,—as much the effect of art as nature,—a very unmeaning face, and, among the higher classes, exceedingly small feet, from the tight pressure, during infancy and childhood, of small wooden shoes. This custom originated (as described in Chinese history) several centuries back, when a large body of females rose against, and endeavoured to overthrow, the government. To prevent the recurrence of such an event, the use of wooden shoes was enforced on all female infants, so small as to disable them, without great pain, to make any use of their feet. This custom has now become so familiar from long usage, that a small foot is reckoned one of the greatest attractions a Chinese female can possess.—*MS. Account of the Chinese.*

MOHAMMEDAN DEVOTIONS.



[An Oratory or Place of Prayer.]

FOUNTAINS, the best of which are such as that represented in our wood-cut, are common in Mohammedan towns; and, besides the ordinary use of assuaging the thirst of the passers-by, they, with an adjoining platform, and with an erect stone to indicate the way the worshipper should turn his face, constitute so many oratories for the use of those whom the call to prayer surprises at a distance from the mosque, or who prefer to perform their devotions in the open air. It is obligatory on all Mohammedans to pray five times a day; but it is only on the Friday that they are expected to attend at the mosque for the purpose: and in general, when a Moslem hears the call to prayers, or knows that the hour is arrived, he will perform his devotions at any convenient place near that where he happens to be at the time, after he has executed the required ablutions. These consist in washing the hands three times successively, as well as the face, the arms, the head, the neck, and the feet; and also the inside of the mouth, of the ears, and of the nostrils. It is for the purpose of these ablutions that fountains are so abundantly provided. In places where no water is to be had the ablution may be made with earth or sand. This practice is followed by persons travelling in the deserts; and with regard to persons at sea, who have no such substitutes, and cannot afford fresh water, they effect their ablutions by rubbing themselves with their hands alone, after having placed them on a stone. Sea-water is considered impure, and entirely unfit for the purposes of ablution. These washings are generally performed in a very slight way. In consequence of its being necessary to wash the arm up to the elbow, the Moslems have the sleeves of their dress with buttons from the elbow to the wrist. The Turks and Arabs generally wear their sleeves loose and unbuttoned, to save the trouble of frequent unbuttoning and buttoning again; but the Persians, who are much less observant

of what their religion in this respect requires, are seldom seen but with their sleeves buttoned up. Indeed, every thing that their forms of worship demand, in regard to prayers and ablutions, is seldom performed by any Moslems except those of the higher and middle classes; and in all cases the morning, noon, and evening periods of prayer are the most attended to, while the intermediate ones are comparatively neglected.

Although Christians are not generally allowed to enter the mosques, the ceremonies of prayer are so much performed in the streets and open places of towns, that the most unobservant stranger soon becomes thoroughly acquainted with all the proceedings.

There are no bells in Mohammedan countries; but, at the appointed hours, an officer of the mosque, called the *muezzin*, mounts upon the minarets and calls the faithful to prayers, or rather notifies that the proper time has arrived. For this office the persons endowed with the most sonorous voices are chosen in preference, and the distance at which they can be heard is such as to become a subject of surprise to Europeans. This notice is not delivered from every mosque, but only from such as are sufficient to afford an equal distribution of the sound over the city. The call consists of a declaration of the Mohammedan profession of faith:—"There is no other God but God, and Mohammed is the Prophet of God!" with many repetitions; then follows the invitation to prayers, to which, in the morning, is added the assurance that "Prayer is better than sleep;" and the whole concludes with the declaration that God is most great, and most high, and that there is no other God but him.

When the call is heard, the devout who happen to be abroad hasten to the fountains and the streams to perform their ablutions; when this is done, if there are many present, one of the number assumes the office of an imaum, or leader, and, placing himself before them,

with his face towards Mecca, the rest follow him in his words and postures.

Every canonical prayer is composed of an invocation, of different *ricauts*, and of the salutation. A *ricaut* consists of a series of seven positions of the body, with each of which a particular prayer or declaration is connected. The worshipper stands for a short time erect, as if endeavouring to fix his attention on the duties he is about to perform, with both the hands raised to the ears, and then repeats the declaration "God is most great!" He then lets his arms and hands hang down, in one sect, or crosses them on his breast, in another, and in this posture repeats the first chapter of the 'Koran.' It is short, commencing with praise and ending in prayer for guidance in the right way. The whole upper part of the body is then bent forward, with the hands resting upon the knees, and they say, with a loud voice, "God is most great!" Then, rising to their former position, they say, "God listens when praise is given to him." And then they prostrate themselves, with their knees, hands, and faces on the ground; and, in this humblest of postures, declare again that "God is great." This declaration is repeated in all the remaining positions; which are—sitting down with their legs bent under them, so that the weight of the body rests upon the heels, which is a common sedentary posture among the Persians:—they then prostrate themselves as before; and, finally, raise themselves upon their feet, if possible without touching the ground with their hands as they rise. This is the first *ricaut*, and the second is like it, except that, instead of raising themselves upon their feet from the last prostration, they seat themselves upon their heels, and in this posture invoke blessings upon the Prophet, upon themselves, and upon all the faithful. If the prayer is intended to conclude with this *ricaut*, a longer address than any which preceded is added. It commences with a declaration of faith, and concludes with the invocation of blessings. After this, the worshipper, still sitting, turns his face first towards the right, and then towards the left, repeating each time "Peace be with you." These two *ricauts* constitute a complete prayer; and no new words or postures are introduced in the additional *ricauts*, which are required on particular occasions, or which the zealously devout sometimes voluntarily undertake. The arrangement, however, is somewhat varied.

When the canonical prayers are completed, the worshipper, if a person of leisure and devotion, does not immediately rise and go away, but remains to count his beads. The rosary consists of ninety beads, and a distinct ejaculation is appropriated to each as it passes between the fingers. Each ejaculation generally consists of two words, and declares a name or attribute of God. Almost all Moslems in the upper and middle ranks of life carry in their pockets or bosoms a string of beads for this purpose, which they use not only on the occasion we are describing, but while sitting and smoking their pipes, walking in the streets, or even while engaged in conversation. The ejaculation connected with each bead is more generally understood than expressed.

When a Moslem has gone over his beads at the regular time of prayer, he folds his hands, and then, holding them up, open, as if to receive something from above, he prays for such blessings as he desires for himself or his household. When this is concluded, he strokes his beard with his right hand, and says, "Praise be to God!" This concludes the whole.

Moslems, when they pray in the open air, are careful to select the cleanest spot they can find; on this they spread a mat or a carpet, on which they stand without their shoes. If they are not provided with those conveniences, they employ their cloaks for the same purpose; and, whether thus used or not, they generally

lay aside their outermost robe while they are engaged in their devotions. It is customary to lay down some relic or other, in such a manner that the forehead may rest upon it in the prostrations. It is remarkable that the comb which is employed to dress the beard is most frequently used for this purpose, probably on account of the important and almost sacred office to which it is applied. Moslems, particularly Arabs, have the utmost respect for their beards. They carefully inter the hairs which come off in the combing, and Ali Bey relates that he could not, in all Mecca, procure a hair with which to mend his hygrometer.

In general, the mosque is only attended on ordinary days by the persons whose residence or occupation is in the immediate neighbourhood; but as an attendance on Friday is positively enjoined, the mosques are then well frequented. The Imaum sometimes delivers a sermon to the people, but his proper office is that of leader in their devotions, his functions in some degree approximating to those of our readers or clerks. The ministrations are not at all indispensable, since any man may, and does, occasionally assume the character and perform its functions. In small villages, which have no proper Imaum, the duties of the office are regularly performed by the schoolmaster, if there be any. The Mohammedans can hardly be said to have a clergy. The Imaum is essentially a layman, depending upon some worldly calling for his principal support; for he seldom receives more than from ten to fifteen pounds a year, and often much less, from an appointment for which he is usually indebted to the good opinion which his neighbours entertain of his character and talents.

The devotions as performed in the mosque only differ from those in the open air in being led by the regular officer, in being under cover, and in the greater number of persons assembled, and performing together their simultaneous prostrations. The stranger, as he looks in on passing the open gates of the mosques, will hardly be prevented, by difference of opinion from the worshippers, from feeling it both solemn and interesting to hear the declaration of the greatness of the Deity simultaneously issue from a great multitude prostrate before Him, in an attitude the most expressive of humiliation and self-abasement.

HISTORY OF GAS.—No. I.

THE appearance of this vast metropolis at night is now very different from that which was afforded within the memory of perhaps one half of those persons who frequent its streets. The beautiful light from the numerous lamps and well-lit shop-windows renders a walk by night as safe and as agreeable as by day, and almost blots from memory the dingy illuminations of only twenty years ago. A generation or two before, the case was still worse: as late as in the reign of George II. the only lamps were lanterns, which housekeepers living in the principal streets were required to hang out on dark nights in front of their houses from six to eleven o'clock; and though from that period the number of lights, and perhaps their brilliancy, had progressively increased, the introduction of gas was a leap in the march of improvement far beyond any that had been previously made or hoped for.

Although so lately brought into the service of man, the existence of a gas derived from coal capable of affording "a large flame which burnt vigorously" has been long known. An account of the Burning Well near Wigan, in Lancashire, was published by Thomas Shirley in the 'Philosophical Transactions' of 1667, in which the author confuted the opinion that the water of the Burning Well were inflammable like oil, as it believed, and correctly remarked that the flame

produced by the combustion of bituminous fumes issuing from the water, which he felt as "a strong breath, as it were a wind" against his hand. These fumes, he inferred, were produced from the coal-bed which underlies all that part of the country. The first published account of making coal-gas was about the beginning of the last century, when Dr. Hales, from 158 grains of Newcastle coal, obtained 180 cubic inches of gas,—rather more than is now produced in the large way. This account was published in 1726, and the only object of the experiment was to ascertain the elasticity of the gas; but in a letter written by Dr. John Clayton, without a date, and published in the 'Philosophical Transactions' of 1739, were actually addressed to the Honourable Robert Boyle, as stated upon the original manuscript in the British Museum, coal-gas was made, and its inflammability ascertained, many years previous to Hales's experiment, as Boyle died in 1691.

Dr. Clayton's experiments were suggested by the Burning Well at Wigan: he not only distilled the gas, which he called the spirit of coal, but he filled bladders with it, and frequently amused his friends by burning it like a candle. The application of this inflammability to any useful purpose seems, however, not to have occurred to any person; and this is one of the many examples of the inattention of even philosophical and observing men to the useful and important discoveries almost thrown in their way. For many ages, the attractive property of amber, when rubbed, was known before the electric fluid thus excited was brought into more intense action. The magnifying power of globes of glass was seen by the philosophers of Rome eighteen centuries ago, but no one dreamed of telescopes or microscopes. In like manner seal engraving, and the art of impressing letters and figures on wax and clay, were in practice twenty centuries before the unknown Dutchman or German first thought of using the art of impression as a means of multiplying the art of writing.

Subsequently to these early notices, many distinguished chemists have examined the properties of coal-gas, but to not one of them does it appear to have occurred that the brilliant light afforded would be useful in an economical point of view. The merit of this idea must be ascribed wholly to Mr. Murdoch, who, a century after the experiments of Dr. Clayton, first applied coal-gas to any real use by lighting with it his house and offices at Redruth in Cornwall. This was in 1792. Five years afterwards, when resident in Ayrshire, he made a similar use of gas; and, in 1798, he partially lighted with it the manufactory of Messrs. Boulton and Watt, at Soho, near Birmingham. But the public attention was first drawn to the subject in 1802, when, in consequence of the general rejoicing at the peace of Amiens, it was determined to use gas for the purpose of illumination in front of the extensive range of buildings at Soho. The experiment succeeded perfectly, and the light was disposed in the tasteful and varied forms of which gas is so susceptible. The spectacle afforded was as beautiful as it was new to the public, and the numerous population of Birmingham came out to gaze and be delighted at the extraordinary display of taste and brilliance. Mr. Murdoch, subsequently, in 1806, received the gold medal of the Royal Society, for a communication detailing the successful erection of a gas-apparatus for the manufactory and dwelling-house of Mr. Lee at Manchester.

The public attention in London was shortly after this drawn to the subject by a German named Winsor, who delivered lectures and exhibited a number of interesting experiments at the Lyceum theatre. Winsor was a persevering and sanguine man, but deficient in chemical and mechanical knowledge. At the same

time that his exhibitions and lectures excited attention, the confidence of the public was withheld in consequence of the absurd pretensions put forth by him, and his ignorance of the theory of his subject. As a specimen of his pretensions we need only mention that his advertisements promised a saving of 1000 per cent. by the burning of mere smoke,—that the new light might be made to ascend in columns to the clouds, and descend in showers from the trees,—and that one crystal globe would produce light and heat enough for the largest room in winter. His chemical knowledge may be inferred from his printed statements, that pure hydrogen is the nourisher of life and flame, and that an escape of gas into a room cannot be dangerous, because the mixture of atmospheric air would prevent explosion. The gas employed in his exhibitions was burned in an impure state, and was, in consequence, very offensive to the smell; this, with some other circumstances, caused a prejudice against gas at the time, which must have operated in delaying its general adoption; though it is but fair to say that the perseverance of Mr. Winsor was very instrumental in making it known.

In 1804 he obtained a patent as inventor of gas, and published a prospectus of a National Light and Heat Company, representing that, by a deposit of only 5*l.*, each subscriber would secure a handsome fortune, which he estimated would amount at least to 570*l.* per annum, and might, probably, be ten times that sum. Notwithstanding any distrust that might have been caused by the circumstances above mentioned, the promise of such a vast profit excited the cupidity of many, and it is stated that nearly 450,000*l.* were subscribed in furtherance of Winsor's schemes. But this sum was wholly expended in costly experiments, in ineffectual attempts to purify gas, and in public exhibitions of its effect in lighting streets. The first attempt was in 1807; in that year Pall-Mall was lighted up with gas, and it continued for some years to be the only street in London so illuminated. In 1809, the National Light and Heat Company applied to Parliament for an act to incorporate them, but were opposed by Mr. Murdoch, on the ground of priority of discovery: a great deal of evidence was adduced, and a charter was refused. In the following year another application was made to Parliament, which was this time successful, though the powers granted to the Company were much below what they had asked in their first application. By the Act then granted, their capital was limited to 200,000*l.*;—they were to contract with the parishes of the metropolis to furnish light at a cheaper rate than the usual mode of lighting with oil;—they were not to exercise any of the powers granted until 100,000*l.* should be raised;—and the whole sum must be subscribed within three years of the date of their charter.

Hitherto the Company had confined their attempts to Pall-Mall; but when they became a chartered body they purchased premises in Cannon Row, Westminster, and proceeded to make experiments on so large a scale that the subscribed funds were soon nearly exhausted: the subscribers began to be dissatisfied, and some alterations in the management were in consequence insisted upon. A new charter was obtained in 1812 for the period of twenty-one years, on the same conditions as before, and the Company, though making little or no profit, steadily pursued their course. About this time they engaged the services of Mr. Clegg, who had been for some years engaged in erecting gas-apparatus in Birmingham, and established two separate stations, in addition to that which they had hitherto worked in Westminster. One of their new stations was at the Curtain Road, and the other at Brick Lane. In three or four years from this time the Company began to realize the profitable effects of their exertions; the utility of gas was becoming daily more obvious, and

the current of public opinion was turning rapidly in its favour. Applications were made for private lights from various parts of the metropolis, and in many streets the old oil-lamps were quite discarded as public lights. In 1816, the extent of their operations requiring an increase of capital, the Company obtained leave from Parliament to augment their capital to 400,000*l.*, which has since increased to 900,000*l.* In 1823, when a parliamentary investigation was made as to the propriety of placing all gas companies under immediate legislative control, the annual consumption of coal by the chartered Company was 20,678 chaldrons, producing, on an average, 680,000 feet of gas every night, which was distributed through the metropolis by means of 122 miles of pipe, —supplying upwards of 30,000 burners, and giving a light equal to more than 30,000 lbs. of tallow candles. The whole quantity of gas supplied by the other establishments then in existence scarcely reached the amount supplied by the chartered Company: but such has been the increase of gas-lighting in the ten years since elapsed, that this particular Company have at least tripled their produce; while the whole of the gas companies in London are estimated to consume 200,000 chaldrons of coal per annum; and to distribute through nearly 600 miles of pipe the enormous quantity of 7,000,000 of cubic feet of gas every twenty-four hours, on an average of the whole year, giving a light equal to what would be obtained from 300,000 lbs. of candles.

While gas was slowly and with difficulty struggling into notice in London, it was making rapid strides in the manufacturing districts of England. Mr. Clegg, who, in 1813, entered the service of the chartered Company, had, as early as the year 1805, erected a very effective gas-apparatus at Halifax; and Mr. Pemberton, besides lighting his own manufactory, fitted up a very complete establishment in an extensive button manufactory at Birmingham, so perfectly answering the ends proposed,—which were not only to light the manufactory, but to supply heat also for soldering,—that the works have been in constant use from that time, and have required but few alterations and repairs since. Several other gas-works, erected about the same time, in Birmingham, by Mr. Pemberton, are still in use; and, although some improvements have been made in them, they mostly retain the original form in which they were erected. The success which had attended gas-making in the provinces was communicated to London, and the rapid and complete success of the practice in London again acted upon the provinces. It may now be asserted that there is hardly a single provincial town of any importance which is not provided with an efficient gas establishment.

[To be continued.]

ADMINISTRATION OF JUSTICE IN OTAREITE.

THE code of laws (formed by the missionaries) is not very voluminous. Murder and treason are the only two capital crimes. Theft is usually punished by a four-fold restitution, generally in hogs, half of which is forfeited to the person from whom the articles have been stolen, and the other half to the king. Fornication, Sabbath-breaking, and other comparatively minor delinquencies, are punished by the offender being obliged to bestow a proportionate quantity of labour on some public work,—such as making or repairing a portion of a road. If the culprit should be a female, she is obliged to make a quantity of native cloth.

Being on the subject of laws, the description of a trial which took place very shortly after our arrival may not be amiss. The judges are called "Aavah," which name is, however, applied to all persons invested with legal authority, from the lord-chief-justice down to the lowest constable, except that the word "Rai," or "Great," is added when speaking of the former, and also to all district judges.

Justice is generally administered under some large spreading tree; in the present instance, the scene of the transaction was just in front of the house of the English Consul, and opposite the ship. The culprit had been detected having in his possession part of a gown belonging to an English lady, the sister-in-law to the Consul; and he readily confessed that he had stolen it out of her room while the family were at church, by introducing a hooked stick through the blinds, which, not being of the finest manufacture, readily admitted the gown to be drawn through. Notwithstanding his confession, it was necessary that he should undergo the trial, and have sentence regularly passed upon him. Little examination was, however, needed; for any one is allowed to condemn himself, and the judges are not sorry to be thus spared much of the trouble of investigation. A number of Aavahs of different ranks were assembled, having in their hands the pamphlet containing the laws; and one, who was judge of the district, after a short speech of admonition, condemned the culprit to pay four large hogs;—two to the lady, and two to the king. A slight attempt at form made the scene appear to us still more ludicrous than it otherwise might. The Aavahs, none of whom had any trousers, were mostly dressed in a coat, waistcoat, shirt, and neckerchief; and they also wore a large and neatly made Poorai mat, which appeared to be their exclusive privilege. A provost-marshal, with a bare rusty sword, and a marine's coat, with one or two other attendants, did not make much addition to the solemnity of the scene.

Two witnesses are required to condemn a man for any heinous offence; but no member of the church can be brought to trial without being first excommunicated, or scratched off the books. They have no juries, as they would not at present be able to understand the system, but the attendance of many inferior Aavahs is required, with the view of securing justice to the accused, who is allowed to go at liberty, even without bail, both before and after trial. The "Aavah Rai" wear a sort of high head dress, the flat front of which is ornamented with feathers, while from the hinder part hangs a quantity of long human hair. The frame of this head-piece is of wicker-work; and I understood that it was the ancient war-cap, which, from its impenetrability, appears probable.—*MS. Journal of a Voyage of Discovery.*

THE CASTLE OF HASTINGS, WITH THE CHAPEL OF THE VIRGIN MARY.

UPON a lofty rocky cliff, to the westward of the town of Hastings, there are some remains of a large and very ancient castle. At what period or by whom it was erected is not stated by Leland, Camden, or any writer who has treated of our topographical antiquities. But from its situation, which must have been particularly favourable to the ancient mode of fortification, it is more than probable that a fortress existed here long before that which the Danish rovers, under Hastings their leader, are said to have constructed. This conjecture receives some support from a passage in the 'Chronicles of Dover Monastery,' printed in Leland's 'Collectanea,' which says, "that when Arviragus threw off the Roman yoke, it is likely he fortified those places which were most convenient for their invasion, namely, Richborough, Walmer, Dover, and Hastings." Bishop Lyttleton, however, was inclined to think that here was originally a Roman fortress, built as a defence against the invasion of the pirates. He further observes, that although William the Conqueror, as we are told, ran up a fort at Hastings just before his engagement with Harold, this could not have been his work, as it would have required more time and labour than his circumstances would then have allowed; and concludes that William might probably have repaired the old Roman castle and have placed a garrison in it. In the 'History of Canterbury,' written by Eadmer, it appears that, in the year 1090, almost all the bishops and nobles of England were assembled by royal authority at the castle of Hastings, to pay personal homage to King William I. before his departure for Normandy.

Little more concerning this castle is mentioned in history, except that within its walls there was a free royal chapel dedicated to the Virgin Mary, in which was a dean with several secular canons and prebendaries. It is supposed to have been founded by one of the earls of Eu while proprietor of the castle. Prynn, as quoted by Grose, records various circumstances relative to a dispute between King Edward III. and the Bishop of Chichester and Archbishop of Canterbury, concerning the right claimed by them of visiting this chapel, which, however, in the reign of Henry VI., was placed under the jurisdiction of the former of these prelates. At the dissolution, in the reign of Henry VIII., the deanery was valued at 20*l.* per annum, and the seven prebends at 41*l.* 13*s.* 5*d.*; and the whole was, a few years after, granted by the same king to Sir Anthony Browne. It appears, by a patent of Edward III., that the dean had licence to build himself a mansion within the walls of the castle.

What remains of the castle approaches nearest in shape to two sides of an oblique spherical triangle, having the points rounded off. The base, or south side next the sea, completing the triangle, is formed by a perpendicular craggy cliff about 400 feet in length, upon which are no vestiges of walls or other fortification. The east side is made by a plain wall measuring near 300 feet, without tower or defence of any kind. The adjoining side, which faces the north-west, is about 400 feet long. The area included is about an acre and one-fifth. The walls, nowhere entire, are about eight feet thick. The gateway, now demolished, was on the north side, near the northernmost angle. Not far from it, to the west, are the remains of a small

tower, enclosing a circular flight of stairs; and, still farther westward, a sally-port and the ruins of another tower. On the east side, at the distance of about 100 feet, ran a ditch, 100 feet in breadth at the top, and 60 feet deep; but both the ditch, and the interval between it and the wall, seem to have gradually narrowed as they approached the gate, under which they terminated. On the north-west side there was another ditch of the same breadth, commencing at the cliff opposite to the westernmost angle, and bearing away almost due north, leaving a level intermediate space which, opposite to the sally-port, was 180 feet in breadth.

The castle, together with the rape of Hastings, which always accompanied it, underwent many changes of proprietors until the year 1461, when the estate came into the possession of Sir William Hastings, on whom the title of Lord Hastings was bestowed by Edward IV. This was the nobleman whose name has been rendered so familiar by the histories of England, Shakspeare's play of Richard III., and the romances about Jane Shore. When the fidelity of Lord Hastings to the children of Edward IV. cost him his life, his estates were forfeited to the crown; but they were restored to his son by Henry VII., and confirmed to him by Henry VIII. By one of his descendants, who were invested with the earldom of Huntingdon, the castle of Hastings was sold, together with the manors of Crawhurst, Burwash, and Berelham, to Thomas Pelham, Esq., to whom the perpetuity was confirmed by James I. in 1605. In his family it has ever since remained, and at present belongs to the Earl of Chichester, to whose father it was bequeathed by the first Duke of Newcastle.



[St. Mary's Chapel, Hastings, and Ruins of Castle on the Cliff.]

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HOGARTH AND HIS WORKS.—No. VI.

THE RAKE'S PROGRESS.



[THE RAKE'S PROGRESS.]

"Riches, like insects, when conceal'd they lie,
Wait but for wings, and in their season fly.
Who sees pale Mammon pipe amidst his store,
Sees but a backward stow'd for the poor;
This year a reservoir, to keep and spare;
The next a fountain, spouting through his heir,
In lavish streams to quench a country's thirst,
And men and dogs shall drink him till they burst."

Pope, one of the keenest observers of human life that ever threw his thoughts into verse, has thus described the natural and common succession of Prodigality to Avarice. Hogarth has painted the consequences of this succession, and, we think, with greater truth than the poet has described them.

The miser is dead;—his heir comes to open the "reservoir." The man who, when living, denied himself a coat,—whose old shoes are patched with a piece cut out of the cover of the family-bible,—is honoured "with customary suits" of black and escutcheons when he is dead. The undertaker is covering the miser's room with these preparations for "lying in state;" the heir is being measured for his mourning garments. The strong chests are opened; the conveyances, the mortgage-deeds, the bonds, are exposed to view; the money-bags are explored; the secret hoards are found in the crazy walls. Up to the moment when he took to his bed, and left his crutches against his comfortless chimney,—a monument of "the ruling passion strong in death,"—the avaricious man was intent to save. For years the meat-jack had been put away in the cupboard to rest,—for years the hearth had sent forth no comfortable blaze:—

"Tenants with sighs the smokeless towers survey,
And turn th' unwilling steeds another way;
Benighted wanderers the forest o'er
Curse the saved candle and unopen'd door."

The heir will change all. No longer will the old crone, who is about to kindle the unaccustomed fire, be called upon to put the rush-light in the save-all; no longer will the starved cat pry into every hole for a morsel of food; no longer will the journal of the master of that house record such a fact as "May the 5th, 1721, put off my bad shilling." The heaps of gold are no longer to be secretly gazed upon, or applied to produce other heaps of gold; they are open to the day;—they are ready for the hard-featured man of business to purloin while he makes his inventory, and for the unhappy youth to abuse at the first moment when he takes possession of them. He has become familiar with vice, even under the severe discipline of his avaricious father. Perhaps that severe discipline has driven him to vice; certainly the want of confidence which must have subsisted between the father and the son must have confirmed his evil propensities, if it did not call them forth. He is a destroyer of female honour. The mother of the unfortunate girl whom he has tempted from the path of modesty exhibits his letters to her wretched daughter, who herself displays the ring which he had given her as a pledge of affection. The written words, and the more impressive symbol of vows and confidence, are despised. He has become the master of gold, and he offers gold in reparation. He has already formed a false estimate of the power of riches. He fancies that they can procure him not only outward pleasures but inward peace; that they can stand in the place of that satisfaction which results from the performance of our duty. We shall see where this mistake leads him. The delusion which he has indulged in abusing that confidence of women, which is at the bottom of the holiest and purest affections of our nature;—the delusion which he is still indulging in fancying that he can bestow peace, either upon his partner in evil or upon himself, by a money-payment, as the price of outraged feelings,—will become habitual. He is entering upon

systematic vice: his previous faults may have been those of ill-directed impulses; his possession of wealth converts those impulses into principles.

An elegant moral and philosophical writer, Dr. Chalmers, has strikingly described the power and operation of *habit* upon vicious inclinations: "He who enters on a career of vice, enters on a career of headlong degeneracy. If even for once we have described [gone through] that process of thought and feeling which leads, whether through the imagination or the senses, from the first presentation of a tempting object to a guilty indulgence, this of itself establishes a probability that, on the recurrence of that object, we shall pass onward by the same steps to the same consummation. And it is a probability ever strengthening with every repetition of the process, till at length it advances towards the moral certainty of a helpless surrender to the tyranny of those evil passions which we cannot resist, just because the will itself is in thralldom, and we choose not to resist them. It is thus that we might trace the progress of intemperance and licentiousness, and even of dishonesty, to whose respective solicitations we have yielded at the first, till, by continuing to yield, we become the passive, the prostrate subjects of a force that is uncontrollable only because we have seldom or never in good earnest tried to control it. It is not that we are struck of a sudden with moral impotency; but we are gradually benumbed into it. The power of temptation has not made instant seizure upon the faculties, or taken them by storm. It proceeds by an influence that is gently and almost insensibly progressive,—just as progressive, in truth, as the association between particular ideas is strengthened by the frequency of their succession. But even as that association may at length become inveterate, inasmuch that when the first idea finds entry into the mind, we cannot withstand the importunity wherewith the second insists upon following it; so might the moral habit become alike inveterate,—thoughts succeeding thoughts,—and urging onward their counterpart desires in that wonted order which had hitherto connected the beginning of a temptation with its full and final victory. At each repetition would we find it more difficult to break this order, or to lay an arrest upon it; till at length, as the fruit of this wretched regimen, its unhappy patient is lorded over by a power of moral evil, which possesses the whole man, and wields an irresistible, or rather an unresisted, ascendancy over him *."

Mr. Charles Lamb, in his exquisite 'Essay on the Genius and Character of Hogarth,' which we have so frequently quoted, says, "I have sometimes entertained myself with comparing the 'Timon of Athens' of Shakspeare, and Hogarth's 'Rake's Progress' together. The story,—the moral,—in both is nearly the same. The wild course of riot and extravagance ending in the one with driving the Prodigal from the society of men into the solitude of the deserts; and, in the other, with conducting the Rake through his several stages of dissipation into the still more complete desolations of the mad-house, in the play and in the picture are described with almost equal force and nature. The levee of the Rake, which forms the subject of the second plate in the series, is almost a transcript of Timon's levee in the opening scene of that play."

It appears to us that, although there are many points of similarity between the characters of Timon and the Rake, there are also many of contrast. These differences, we think, are sufficiently striking, even in the second plate of the series, "transcript" as it undoubtedly is of some passages in Timon's levee. In Hogarth, the Rake is surrounded by persons of various qualifications and degrees, who, however they may all

* 'Chalmers' Bridgewater Treatise,' vol. i. p. 142.

assist him in spending his inheritance, have very different talents to exchange for his money. The hero is in his morning gown, attending to a bully who has brought a letter of introduction: the ruffian grasps his sword in one hand and places the other upon his breast. The Rake is supposed to have rivals to be secretly removed,—affronts to be wiped out by a stab in the dark. Such practices could be scarcely said to belong to England even in Hogarth's day, loose as were the morals of that period, and inefficient the police. The character, however, might have existed; but he is gone. Those, now, upon whom Nature has stamped the disposition of the bravo have taken to another profession, which is safer: they have become writers for the baser portion of the press. They destroy the peace of families by the slanders which they invent for some Sunday medley of filth and scandal; or squirt their daily ink upon some illustrious reputation,—the very *cuttle-fish* who make the waters in which a public man swims cloudy for a moment, and then rush to their holes till they have secreted another inky fount, ready to produce another puddle. Such people belong to our times; they have superseded the hired bully of the last century. In front of the Rake is a jockey exhibiting a hawl which his master's race-horses are supposed to have won: this, and two pictures of fighting-cocks on the wall, show that he has become initiated in those most expensive modes of gambling, racing and cock-fighting. Amongst the group of candidates for his approbation there is a prize-fighter of the day, who has come to teach him the science of quarter-staff: boxing had not then become a fashionable accomplishment. Close by the prize-fighter is a French fencing-master, making a thrust with his foil, and exhibiting the most perfect self-complacency; and in advance of him is a dancing-master, the very perfection of puppyism. In the back-ground, behind the bully, is a fellow winding a French-horn. But amongst this singular group there are two portraits, which show that the vanity of the Rake led him to cultivate higher tastes than the jockey or the prize-fighter could inspire. The great Handel, waiting to give his lessons, is absorbed by his own performance at the harpsichord: his back is only seen, but there is no doubt that Hogarth meant to introduce the immortal composer of 'The Messiah.' The other portrait is that of Bridgeman, a celebrated layer-out of grounds, or landscape-gardener, of that day. The object of the painter was to exhibit the various modes in which a prodigal may expend his substance, even in pursuits in themselves praiseworthy:—

"What brought Sir Visto's ill-got wealth to waste?
Some demon whisper'd,—'Visto, have a taste.'
Heaven visits with a taste the wealthy fool,
And needs no rod but Ripley with a rule*."

The ante-chamber is filled with tailors and wig-makers; and a poet is there, spouting his own verses. This is the key to the resemblance which Mr. Lamb saw between the levee of Hogarth's Rake and that of Shakspeare's Timon. In the latter we have the poet, the painter, the jeweller to sell his diamond, and the merchant; but here, we think, the resemblance stops. Hogarth's Rake is all sensuality and selfishness; even what is intellectual about him is only brought there for the gratification of his vanity. But Timon is essentially high-minded and generous. He addresses the poet and the painter as one who understands the arts which they profess, and with the kindness and ease of a gentleman, without any of the pretensions of a patron. He purchases the diamond of the jeweller, not for himself, but to bestow it on a friend; the wares of the merchant are devoted to the same purpose, by the same exuberant

generosity. At the levee of Timon he is told that one whom he regards is sent to prison. He exclaims,—

"I am not of that feather to shake off
My friend when he most needs me. I do know him
A gentleman that well deserves a help,
Which he shall have: I'll pay the debt and free him."

Again: an old Athenian comes to Timon to complain that his servant aspires to marry his daughter, and that he, being rich, rejects the suit. Timon thus answers:—

"This gentleman of mine hath served me long;
To build his fortune I will strain a little,
For 'tis a bond in men. Give him thy daughter:
What you bestow in him I'll counterpoise."

All this, indeed, might be ostentation in some men: but in Timon it was a generosity thoughtless and unjust, for it plunged him into debt and ruin;—but still not in the slightest degree parallel with the gross selfishness of Hogarth's Rake. In the fall of Timon, we sympathize with his sufferings and his hatred of his false friends;—in the destruction of Hogarth's Rake we own that the judgment which pursues him is a righteous one.

There can be no mistake as to the propensities of the hero of this series of prints; they are essentially low and degrading. The third plate exhibits him in a state of the most beastly drunkenness, in a night-tavern of London. He has beaten the watchman, and brought off his lantern as a trophy of victory; and he is now surrounded with abandoned women, who are rifling his pockets. It is not for us to describe this scene: Hogarth only could have painted it.

The question for us to ask at this stage of the 'Rake's Progress' is, What has the unhappy rich man obtained by the improper application of his riches? He has cast away the affection of a being who loved him; he has surrendered himself to the indulgence of every desire which his passions and his vanity have prompted; he has sounded the depths of the lowest profligacy, as it were in despair of finding excitement enough in the peculiar vices of his own station. Has he found any happiness? Has he not rather found not only the stunning consciousness of wrong-doing, but positive pain even in that wrong-doing? The nature of this positive pain of evil conduct has been well put by Dr. Chalmers, in the work we have already quoted:—"In counterpart to the sweets and satisfactions of virtue, is the essential and inherent bitterness of all that is morally evil. We repeat, that, with this particular argument, we do not mix up the agonies of remorse. It is the wretchedness of vice in itself, not the wretchedness which we suffer because of its recollected and felt wrongness, that we now speak of. * * * * Who can doubt, for example, the unhappiness of the habitual drunkard? and that, although the ravenous appetite, by which he is driven along a stormy career, meets every day, almost every hour of the day, with the gratification that is suited to it. The same may be equally affirmed of the voluptuary, or of the depredator, or of the extortioner, or of the liar. Each may succeed in the attainment of his selfish object; and we cannot possibly disjoin from the conception of success, the conception of some sort of pleasure; yet in perfect consistency we affirm, with a sad and heavy burthen of unpleasantness or unhappiness on the whole. He is little conversant with our nature who does not know of many a passion belonging to it, that it may be the instrument of many pleasurable, nay, delicious or exquisite sensations, and yet he a wretched passion still; the domineering tyrant of a bondsman, who at once knows himself to be degraded, and feels himself to be unhappy."*

We are arrived at the point of the 'Rake's Progress,'

* 'Pope's Moral Epistles.'—Ripley was an architect of the time of Queen Anne.

* 'Chalmers' Bridgewater Treatise,' vol. i. p. 105.

when, having run through a long course of prodigality, the hour of retribution is arriving in the form of *pecuniary embarrassment*. In this course of prodigality he has greatly injured himself; has he benefited others? Pope, who lived at a time when there were very false notions abroad in the world as to the effects of profuse expenditure upon the condition of society, makes the miser "a backward steward for the poor." He was the "reservoir;" his heir is the "fountain" who is to slake "a country's thirst." The same poet, in his description of "Timon's villa," falls into the same mistake. Here

"All cry out, what sums are thrown away!"

and yet, according to the satirist,

"—hence the poor are cloth'd, the hungry fed,
Health to himself, and to his infants bread,
The labourer bears."

Whatever may be the temporary and local effects when "sums are thrown away" upon those who live, or appear to live, upon the follies of others, there can be no doubt that the enduring and general benefits of judicious expenditure—of what is truly called "profitable expenditure"—are of infinitely greater importance to the community. The poet felt this himself; but he was blinded by the notion of his day, that unless the rich were profuse, the poor would starve. He says, in the same epistle in which he thinks that the "sums thrown away" afford the labourer bread,

"Bid harbours open, public ways extend,
Bid temples worthier of the god ascend;
Bid the broad arch the dangerous flood contain;
The mole projected break the roaring main;
Back to his bounds the subject sea command,
And roll obedient rivers through the land."

Such are some of the modes, in which riches can be judiciously expended;—and whatever is saved from a wanton consumption of wealth goes to increase the capital of the community, and to become the source of those public conveniences which enable all capital to work more profitably, and of those public monuments of the higher feelings of our nature, which elevate the character of individuals and of nations.* We quote a parallel between the expenditure of a prodigal and the expenditure of a high-minded citizen, from a little work published by the Society for the Diffusion of Useful Knowledge:—

"There are many who think that accumulation is a positive evil, and that consumption is a positive benefit; and, therefore, that economy is an evil, and waste a benefit. The course of a prodigal man is by many still viewed with considerable admiration. He sits up all night in frantic riot—he consumes whatever can stimulate his satiated appetite—he is waited upon by a crowd of unproductive and equally riotous retainers—he breaks and destroys everything around him with an unsparing hand—he rides his horses to death in the most extravagant attempts to wrestle with time and space; and when he has spent all his substance in these excesses, and dies an outcast and a beggar, he is said to have been a hearty fellow, and to have 'made good for trade.' When, on the contrary, a man of fortune economizes his revenue—lives like a virtuous and reasonable being, whose first duty is the cultivation of his understanding—eats and drinks with a regard to his health—keeps no more retainers than are sufficient for his proper comfort and decency—breaks and destroys nothing—has respect to the inferior animals, as well from motives of prudence as of mercy—and dies without a mortgage on his lands; he is said to have been a stingy fellow, who did not know how to 'circulate his money.' To 'circulate money,' to 'make good for trade,' in the once common meaning of the terms, is for one to consume unprofitably what, if economized, would have stimulated production in a way that would

have enabled *hundreds*, instead of one, to consume profitably. We will give you two historical examples of these two opposite modes of making good for trade and circulating money. The Duke of Buckingham, 'having been possessed of about 50,000*l.* a year, died, in 1687, in a remote inn in Yorkshire, reduced to the utmost misery.'† After a life of the most wanton riot, which exhausted all his princely resources, he was left at the last hour, under circumstances which are well described in the following lines by Pope:—

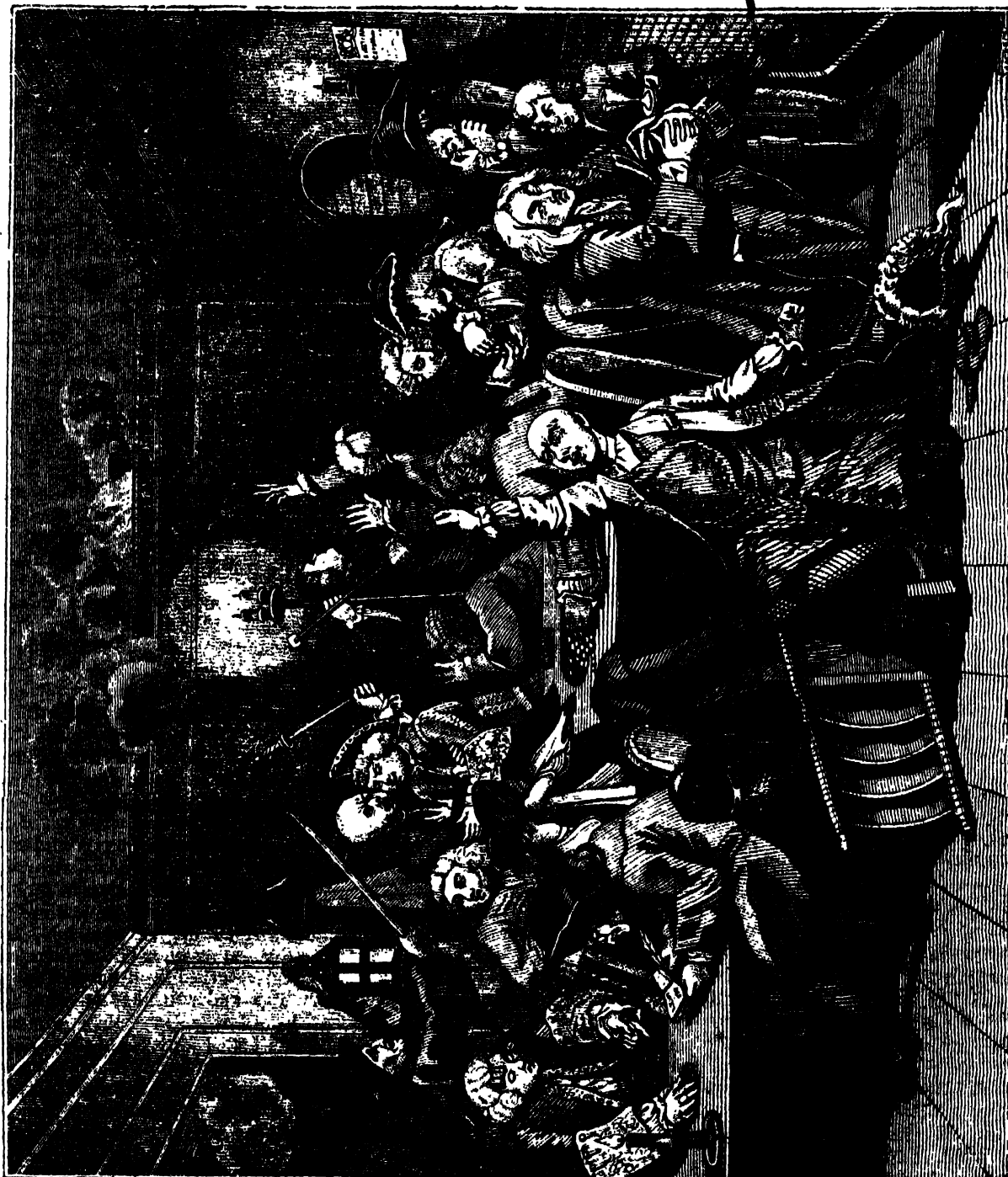
'In the worst inn's worst room, with mat half hung,
The floors of plaster, and the walls of dung,
On once a flock bed, but repair'd with straw,
With tape-tied curtains never meant to draw,
The George and Garter dangling from that bed
Where tawdry yellow strove with dirty red;
Great Villiers lies. * * * *
No wit to flatter left of all his store,
No fool to laugh at, which he valued more,
There, victor of his health, of fortune, friends,
And fame, this lord of useless thousands ends.'

Contrast the course of this unhappy man with that of the Duke of Bridgewater, who devoted his property to really 'making good for trade,' by constructing the great canals which connect Manchester with the coal countries, and with Liverpool. The Duke of Buckingham lived in a round of sensual folly: the Duke of Bridgewater limited his personal expenditure to 400*l.* a year, and devoted all the remaining portion of his revenues to the construction of a magnificent work of the highest public utility. The one supported a train of cooks, and valets, and horse-jockeys: the other called into action the labour of thousands, and employed in the direction of that labour the skill of Brindley, the greatest engineer that any country has produced. The one died without a penny, loaded with debt, leaving no trace behind him but the ruin which his waste had produced: the other bequeathed almost the largest property in Europe to his descendants, and opened a channel for industry which afforded, and still affords, employment to thousands.†

The fourth picture of the 'Rake's Progress' represents the commencement of the penal consequences of crime—those consequences which are direct and positive, and which alone are deeply felt by the habitual profligate. In this picture the Rake is represented as arrested for debt. He is proceeding to court on a gala-day—for private depravity amongst men does not debar them from the customary honours of their station—and his chair is stopped by a sheriff's officer. By one of those chances which rather belong to romance than to real life, the young woman whom the hero of the tale had so deeply injured is passing by. She has clung to a virtuous and reputable course of life; she has saved money; and with the generosity that belongs to woman, she at once devotes her earnings to the release of her betrayer. In point of character and composition this, if not one of the most striking of Hogarth's works, is singularly excellent. The surprise of the profligate in being taught this practical lesson of the effects of his imprudence—the earnest simplicity of the female who shows the means of his release—the stern and peremptory mandate of the sheriff's officer—all these are represented most skilfully. Nor are the accessories of the picture less valuable. Hogarth has introduced an episode which forcibly illustrates the great moral which he constantly kept in view—that vice is a leveller of all distinctions. A knot of blackguard boys are gambling on the pavement; two are earnestly engaged at cards; two others, one of whom is a shoe-black, are at dice; the shoe-black has lost his clothes, but unsated, he offers to stake his only means of industrious existence, his brushes and blacking-pot. The

* Ruffhead's 'Pope.'

† 'Capital and Labour.'



[THE GAMING-HOUSE.]

rake himself has gone through precisely the same temptations—and he has not resisted them. The scene of the dirty gamblers takes place before 'White's,' a celebrated gaming-house of that day:—the moral is such as Hogarth only could have hit off.

In the commencement of his career, the Rake spurned the ties of affection which, if properly strengthened, might have made his life happy, and saved him from misery and degradation. He has rejected the woman that he might have loved; he now plights his faith to one whom he weds for her riches only. In the fifth plate of the series, he stands before the altar, placing the ring on the finger of a deformed and aged lady,—who, with folly equal to his guilt, believes that she can find happiness in such an ill-assorted union. In the back part of the scene, the injured young woman, to whom he had given his early vows, is entering the church, to forbid the solemnization of the marriage. The marriage-law of that day probably justified, or appeared to justify, such an interruption. There are several strokes of Hogarth's peculiar humour in this picture;—such as the creed destroyed by damp, the commandments cracked, and the poor's box covered over with a spider's web.

The Rake is again master of riches. How does he employ them? He has married to repair his fortunes: satiated with the dissipation that he delivered himself over to, he now rushes to the last and most perilous excitement—the gaming-table—as another substitute for honourable occupation. The picture in which Hogarth represents this,—the final vice which leads to the catastrophe—is the sixth of the series. We here republish it. Never were the hateful effects of this demoniacal passion more forcibly delineated. The gambling-house here represented is one that would now be called low. Perhaps in Hogarth's day fortunes were not lost and won amidst gilded saloons, where every luxury that can pamper the senses is administered to the devoted victims. The scene before us is certainly not such as is exhibited in the present times, when men of rank do not hesitate to enter a gambling-house in broad day, secure that the thin disguise of a *Club* may prevent the interruption of a prying police, and believing, perhaps, that vice looks less hideous when she is surrounded with mirrors that show her at full length. The gambling-house to which Hogarth has taken his hero is a wretched den, where crime and misery are already wedded even in externals. In this place there is no selection of companions; pickpockets and highwaymen sit side by side with the laced coat of him the world calls "gentleman." There is no ballot for the admission of sharpers with a pedigree, to the exclusion of sharpers without. The Rake is in the centre of the picture: he has staked his all, and has lost it. He is on his knees, imprecating vengeance on his bare head, from which, in his rage, he has stripped his periwig. He has overturned the chair on which he was sitting, and a dog is barking at his exhibition of impotent frenzy. On his right is another maddened victim, stamping and cursing, with clenched fists, ready to do the last bidding of despair. On his left, in a mute reverie of melancholy or mischief-planning, sits a highwayman, who has lost the fruits of his last crime: he is, perhaps, thinking deeply of the gallows, for the boy hallooos to him in vain to take the liquor he has ordered. The highwayman is seated before a grated fire-place—a precaution not unnecessary in a place where the fiercest passions are let loose. In spite of such precaution, the room is on fire, and the watchman rushes in to alarm the inmates. With two exceptions, the occupation of the gamblers is so absorbing, that none assist in putting out the flames, or think of escaping from the danger. The usurer is still lending

money to a gamester whose substance is not quite exhausted;—the winner of the stakes is still sweeping the golden heaps into his pocket;—another infuriated loser is determined to murder the man who has ruined him, in spite of the common danger by which they are surrounded. All this is true to nature; and there is not a character or incident in the picture that may not be studied with advantage.

The transition from the gaming-house to the prison is not a mere straining after effect; one succeeds to the other by the most easy progression. The Rake is here,—but how changed. It is a remarkable instance of Hogarth's power of delineating character, that in every shifting scene, with the furrows of years and crime and suffering upon his face, we can trace the identity of the unhappy hero of this story, from the first exhibition of heartless profligacy to the last manifestation of human woe. In prison we see the man prematurely old—surrounded by a complication of wretchedness which has done its work upon him, and made the expression of his face one of the most tragically striking in all Hogarth. "Here," says Mr. Lamb, "all is easy, natural, undistorted; but withal what a mass of woe is here accumulated!—the long history of a mis-spent life is compressed into the countenance as plainly as the series of plates before had told it. Here is no attempt at Gorgonian looks which are to freeze the beholder, no grinning at the antique bed-posts*, no face-making, or consciousness of the presence of spectators in or out of the picture; but grief kept to a man's self, a face retiring from notice with the shame which great anguish sometimes brings with it,—a final leave taken of hope,—the coming on of vacancy and stupefaction,—a beginning alienation of mind looking like tranquillity." Certainly this masterly description is no exaggeration of the wonderful merits of this figure. The complexity of misery is indeed frightful. The profligate sits in the beggarly common-room of a London prison. A century has made a material difference both in the comforts and discipline of these places;—but there is misery enough and vice enough within the walls of a prison for debt, to make one wish that the time was past, when the unfortunate should be thus exposed to the contamination of the wicked, and both should be shut out from the power of making an effort to repair the injury they have caused to their creditors. In this wretched den there are, his wife assailing him with threats and reproaches,—and the female whom he had betrayed, accompanied by her child, fainting at the sight of his accumulated misery. He had made an effort to exercise the talents which he in some degree possessed, by writing for the stage—the first resource of the sanguine author. The play is just returned from the manager, who has rejected it. The under-turnkey is pressing him for his fees;—the pot-boy is demanding payment for the beer which he has called for without the means of purchasing it. In such a moment his brain becomes a chaos;—the prison leads to the mad-house. To each print of this series Hogarth has affixed some lines of his own composition. They are not of the highest order—for it is seldom given to one man to excel in two such different walks; but the verses are curious,—and a specimen (the one given with the plate of the 'Prison-scene') will not displease our readers:—

"Happy the man, whose constant thought,
(Tho' in the school of hardship taught,)
Can send remembrance back to fetch
Treasures from life's earliest stretch;
Who, self-approving, can review
Scenes of past virtues, that shine through."

* This is an allusion to Sir Joshua Reynolds' picture of the Death of Cardinal Beaufort.

The gloom of age, and cast a ray
To gild the evening of his day.
Not so the guilty wretch confin'd :
No pleasures meet his roving mind,
No blessings fetch'd from early youth,
But broken Faith, and, wretched truth,
Talents idle and unused,
And every gift of heaven abus'd ;
In seas of sad reflection lost,
From horrors still to horrors tost,
Reason the vessel leaves to steer,
And gives the helm to mad Despair."

The last print of this series is one of the most extraordinary productions of Hogarth's pencil. It is thus described by Mr. Lamb :—"The concluding scene in the 'Rake's Progress' is perhaps superior to the last scenes of 'Timon.' If we seek for something of kindred excellence in poetry, in must be in the scenes of Lear's beginning madness, where the King and the Fool and the Tom-o'-Bedlam conspire to produce such a medley of mirth checked by misery, and misery rebuked by mirth ; where the society of those 'strange bed-fellows' which misfortune have brought Lear acquainted with, so finely sets forth the destitute state of the monarch, while the lunatic bans of the one, and the disjointed sayings and wild but pregnant allusions of the other, so wonderfully sympathize with that confusion, which they seem to assist in the production of, in the senses of that 'child-changed father.'

"In the scene in Bedlam, which terminates the 'Rake's Progress,' we find the same assortment of the ludicrous with the terrible. Here is desperate madness, the overturning of originally strong-thinking faculties, at which we shudder, as we contemplate the duration and pressure of affliction which it must have asked to destroy such a building ;—and here is the gradual hurtless lapse into idiocy of faculties, which at their best of times never having been strong, we look upon the consummation of their decay with no more of pity than is consistent with a smile. The mad tailor, the poor driveller that has gone out of his wits (and truly he appears to have had no great journey to go to get past their confines) for the love of Charming Betty Careless—these half-laughable, scarce-pitiable objects take off from the horror which the principal figure would of itself raise, at the same time that they assist the feeling of the scene by contributing to the general notion of its subject :—

"Madness, thou chaos of the brain,
What art, that pleasure giv'st, and pain ?
Tyranny of Fancy's reign !
Mechanic Fancy, that can build
Vast labyrinths and mazes wild,
With rule disjointed, shapeless measure,
Fill'd with horror, fill'd with pleasure,
Shapes of horror, that would even
Cast doubts of mercy upon heaven.
Shapes of pleasure, that, but seen,
Would split the shaking sides of spleen."

Is it carrying the spirit of comparison to excess to remark, that in the poor kneeling, weeping female, who accompanies her seducer in his sad decay, there is something analogous to Kent, or Caius, as he delights rather to be called, in 'Lear,'—the noblest pattern of virtue which even Shakspeare has conceived,—who follows his royal master in banishment, that had pronounced his banishment, and, forgetful at once of his wrongs and dignities, taking on himself the disguise of a menial, retains his fidelity to the figure, his loyalty to the carcase, the shadow, the shell and empty husk of Lear ?"

There is scarcely a parallel, we think, between the last scenes of Timon and the last scenes of the 'Rake's Progress,' any more than there is in the lives of the two

* Lines inscribed under the plate.

ruined men. Timon truly says, in the first chill of his fortunes,

"No villainous bounty yet hath pass'd my heart ;
Unwisely, not ignobly have I given."

The Rake is one compound of selfishness and sensuality, unadulterated by any generous vice which wears the garb of virtue. Timon, with a lofty misanthropy, rejects the world and its false friends ; he looks to death with the calmness of one who has sounded the depths of the vanity of life :—

"Say to Athens,
Timon hath made his everlasting mansion
Upon the beached verge of the salt flood,
Which once a day with his embossed froth
The turbulent surge shall cover."

He dies, weary of the world and broken hearted ; although the world solicits his return to it. The Rake dies (under the protection of society, for his intellects have perished) without a lofty thought to console his parting hour—a monument of deep and dire retribution for crimes and follies that even in their completion were but another name for misery.

We add a few anecdotes relating to this series of pictures, from the lively and judicious volumes of Mr. Allan Cunningham, on 'British Painters,' published in the 'Family Library' :—

"The persons who crowd the eight busy scenes of the Rake's Progress are not so well known (as those of the Harlot's Progress) ; many are believed to be portraits. The hero himself is probably only the personation of the vices which the painter proposed to satirize ; through which the treasures amassed by sordid meanness were to be as ignobly squandered. In the halo round the head of the antiquated beldame, whom he marries to support his extravagance, we see a satiric touch at that spiritual school of painting, to which Hogarth never bore any love. The two sedate personages, in the scene of the gaming table, are one Manners, (of the family of Rutland,) to whom the Duke of Devonshire lost the great estate of Leicester Abbey, and a highwayman, who sits warming his feet at the fire, waiting quietly till the winner departs, that he may, with a craped face and a cocked pistol, follow and seize the whole. 'Old Manners,' says Ireland, 'was the only person of his time who amassed a considerable fortune by the profession of a gamester.' Hogarth has shown him exercising his twofold avocation of miser and gamester, discounting a note of hand to a nobleman with a greedy hand and a rapacious eye.

"In another scene the actors in the drama of prodigality are numerous and well chosen. The Rake, holding his morning levee, appears stiff and ungraceful in his rich dress and newly acquired importance—and is surrounded by visitors well qualified to reduce him from affluence to poverty. Paris sends a tailor, a dancing-master, a milliner, a master of fencing, and a blower of the French horn ; we have besides an English prize-fighter, a teacher of Italian music, a garden architect, a bravo, a jockey, and a poet. One of those worthies, Dubois, a Frenchman, was memorable for his enthusiasm in the science of defence, and for having died in a quarrel with an Irishman of his own name and profession, as fiery and skilful as himself. Another was Figg, the prize-fighter, noted in the days of Hogarth for beating half-a-dozen intractable Hibernians, which accounts for the words on the label—'A Figg for the Irish.' The teacher of music resembles Handel, and the embellisher of gardens has the look of Bridgman—a person who modestly boasted that his works 'created landscape, realized painting, and improved nature.' If the subjects which painting embodies could be as clearly described by the pen, there would be less use for the pencil ; nothing short of the

examination of these varied productions can properly satisfy curiosity. "The 'Rake's Levee Room,'" says Walpole, "the 'Noblemen's Dining Room,'" the "Apartments of the Husband and Wife in Marriage a-la-mode," the "Alderman's Parlor," the "Bed-chamber," and many others, are the history of the manners of the age.

"The fame of Hogarth, and the profit arising from his pieces, excited needy artists and unprincipled print-sellers to engrave some of the most popular of his works, and dispose of them for their own advantage. The eight prints of the 'Rake's Progress' were pirated by Roitard, published on one large sheet a fortnight before the originals appeared, and called 'The Progress of the Rake, exemplified in the Life of Ramble Gripe, Esq., Son and Heir of Sir Positive Gripe.' They were executed too with a skill which threatened to impair his income. Hogarth complained, with much bitterness, of this audacious proceeding; and to put a stop to such depredations, and secure to painters generally a fair profit in their own compositions, he applied to parliament, and obtained an act in 1735, for recognizing a legal copyright in designs and engravings, and restraining copies of such works from being made without consent of the owners.

"A very few plain words, one would have thought, might have expressed this very plain meaning; but in acts of parliament, the meaning is apt to be lost amidst the multitude of phrases, as a figure is sometimes obscured in the abundance of its drapery. One Huggins, the friend of Hogarth, drew the act; and worded it so loosely and vaguely, that when resorted to as a remedy in the case of Jeffreys the printseller, it was the opinion of Lord Hardwicke, before whom the trial came on, that no person claiming under an assignment from the original inventor of the paintings, or designs copied, could receive any benefit from it. 'Hogarth,' says Sir John Hawkins, 'attended the hearing of the cause, and lamented to me that he had employed Huggins to draw the act, adding that when he first projected it, he hoped it would be such an encouragement to art, that engravers would multiply, and the shops of print-sellers become as numerous as those of bakers:—a hope (adds Hawkins) which seems pretty nearly gratified.'

"From his pencil and his graver Hogarth obtained a twofold fame, and a right to a twofold profit—of which he naturally desired to secure the advantages to himself. His paintings, notwithstanding his general reputation, continued, however, low-priced; they were considered more as the corrupted offspring of a random inspiration, than as the legitimate productions of study and art. His graver was to him as a second right hand; he thus multiplied his works by the hundred and by the thousand, increased his income, and established his fame everywhere. Hogarth stood alone here; by holding the graver with his own hand, he communicated to the prints an autograph importance which materially increased their value."

Looking back upon the scenes of vice and misery which Hogarth has so truly depicted in this series of plates, we are naturally led to consider what are the causes of these fatal evils which have prevailed, and still prevail, so extensively in the most civilized states of man. There can be no doubt, we think, that they almost entirely proceed from improper education. The young man whose wretched career is here depicted, is presumed to have been sufficiently instructed in the elements of knowledge—he was educated, probably, at some public school: one of the commentators of Hogarth says, that in the first plate the miser's heir is represented as just summoned from the university by the death of his father. In these venerable institutions too

little attention has always been paid to the education of the moral feelings—to the formation of correct notions of the responsibility under which every member of society labours to discharge his duty to the best of his ability, according to his opportunities. The rich, to whom much is given, and from whom, therefore, much is demanded, seldom hear this lesson. They are not early instructed in "the icy precepts of respect"—the severe maxims of prudence; but are led to fancy that riches are all-powerful, and that the pleasure of their possessor is the only rule for their administration. This is a fatal mistake. It precipitates him who labours under the delusion into the depths of sensuality and selfishness; it cuts him off from the enjoyments and the honour which wait upon the faithful exercise of any species of power; it makes him a mark for the artifices of the worthless and the designing; it degrades him, in fact, from the station which a wise and benevolent rich man ought to hold, into what has been most emphatically called "a useless funnel of expense." For such evil notions as these there is no corrective but sound education,—not the education only of the intellect, but of the heart,—not a mere cultivation of the memory and the imagination, but a strengthening of the moral principle. How this effect is to be attained is not our province to discuss. It is enough for us to express our conviction, that for the correction of the early mistakes which lead to the debasements of high life or of low, the same educational process is necessary.

The time may come when the vices and wretchedness which Hogarth has depicted in his 'Rake's Progress,' and his 'Gin Lane,' shall be looked upon as curious evidences of a past state of manners. If that happy time should ever arrive, it will be accompanied by the devotion, both of the rich and the poor, to those sources of pleasure which Nature has opened to us in the cultivation of our higher tastes, and the indulgence of our purer affections. False excitements will then be valued as they deserve. The frivolities of the great, and the grossness of the vulgar, will then be weighed in the same scale. Men of all ranks will have more enjoyments in common. A more healthy state of the social system will be generally induced. Those who are poor will labour with cheerfulness; those who are rich will know that wealth is given to them, not to squander, but to render a source of public and private benefit.

Nor are we without hope that such a time may arrive. The progress of the humanizing influences of civilization has already banished from our cities many of the more open exhibitions of profligacy which were common in Hogarth's day. Night taverns dedicated to riot and debauchery, uncontrolled by the police,—highwaymen and pickpockets resorting to public places without fear,—ragged boys gambling in the causeways,—prisons, at once the most filthy and corrupting;—such things as these are greatly changed amongst us. Vice does not thrust up her brazen front in noon-day;—she puts on the semblance of decency,—and decency is the portal of virtue. Hogarth's prints undoubtedly show us that in many things we have improved. It is education alone,—not an education confined to small corners of the land, but a broad and universal system of educating all the members of the state with the conviction that they have all high duties to perform,—which can carry forward these improvements as becomes a country which has done so much for example, though she has still left so much undone.

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THE HAARLEM ORGAN.

Wk 11 8/4



We shall, as soon as possible, give our readers an account of the magnificent organ which has been erected in the Town Hall at Birmingham. In the mean time, the following facts relating to the great organ at Haarlem will not be unacceptable. This organ is said to be not only the largest but the best in Europe—that is, in the world. We shall not enter curiously into the question of its claims in either of these respects, but proceed to lay before our readers, with a little modification, the lively account which Dr. Bujaey has given of the instrument in his 'Present State of Music in Germany, the Netherlands, and United Provinces.'—1773.

"There were few things," says this most competent judge of musical affairs, "that I was more eager to see, in the course of my journey, than the celebrated organ in the great church of this city. Indeed, it is the lion of the place; but to hear this lion roar is attended with more expense than to hear all the lions and tigers in the Tower of London. The fee of the keeper, or organist, is settled at half-a-guinea; and that of his assistant keeper, or bellows blower, at half-a-crown. Expectation, when raised very high, is not only apt to surpass probability but possibility. Whether imaginary greatness diminished the real on this occasion I know not; but I was somewhat disappointed on hearing this instrument. In the first place, the person who plays it is not so great a performer as he imagines; and, in the next, though the number of stops amounts to sixty, the variety they afford is by no means equal to what might be expected. As to the *vox humana*, which is so celebrated, it does not at all resemble a human voice, though a very good stop of the kind. But the world is very apt to be imposed upon by names: the instant a common hearer is told that the organist is playing upon a stop that resembles the human voice, he supposes it to be very fine, and never inquires into the propriety of the name, or the exactness of the imitation. However, with respect to my own feelings, I must confess that of all the stops I have yet heard, which have been honoured with the appellation of *vox humana*, no one, in the treble part, has ever reminded me of any thing human so much as of the cracked voice of an old woman of ninety, or, in the lower parts, of Punch singing through a comb."

The organ was built by Müller in the year 1738. It has sixty stops, several of which are not known to our organ-builders, or to be found in any instrument in this country. There are two tremulants; two couplings, or springs of communication; four separations, or valves, to close the wind-chest of a whole set of keys, in case of a cipher; and twelve pair of bellows.

"Upon the whole," concludes Dr. Burney, "it is a noble instrument; though I think that of the New Church at Hamburg is larger, and that of the Old Kerk in Amsterdam better toned. But all these enormous machines seem loaded with useless stops, or such as only contribute to augment noise and to stiffen the touch."

SHAVING.

THE comparative advantages and propriety of shaving, and of permitting the beard to grow, it is perhaps not easy to determine. On the side of beards, it has been argued that nature must have bestowed such an appendage for the purpose of being worn; and that, as Tertullian affirmed, it is "blasphemy against the face" to reject it altogether. It is certain also, that a well-kept beard adds greatly to dignity of appearance, and finely sets off other parts of the countenance, and in particular gives great expression to the eyes. A comparison of bearded and beardless portraits is generally much to the advantage of the former. It is difficult to suppose that Leonardo da Vinci, or Cardinal Bembo, or Crammer, or the Shah of Persia, would look so well without their beards; and in Turkey it is impossible to

compare the men who have been shaven, and otherwise Europeanized, with the bearded civilians in their flowing robes, without feeling that the former are, to use an Oriental simile, "plucked pigeons" in comparison. We have heard much of the dignified and stately appearance of the Turks, but such a comparison enables us to perceive that most of their dignity is in their beards and their dresses. Then we must also take into account the trouble of shaving, which made Seume, a German writer, say, in his 'Journal,'—"To-day I threw my powder-apparatus out of the window. When will come the blessed day when I shall send the shaving apparatus after it!"

On the other hand, it may be alleged that, as the beard has always been shaven wherever men became highly civilized, its growth must have been found incompatible with the convenience and refinements of such a state, and would be a serious incumbrance in many delicate acts. Besides, we find that, among all bearded nations, the beard has always been invested with peculiar sacredness, which preserves it from any kind of violation; and as it is the tendency of civilization to eradicate prejudices, this would suffer among the rest, and men would live in continual peril of the practical jokes and rough handling which so conspicuous an appendage would seem almost to invite. Then it may be questioned whether the care which the beard would require to keep it in a decent state, and to prevent it from becoming a receptacle for dust and other impurities, is not fully equal to any that shaving occasions. In point of mere appearance, also, it may be stated that, what the eyes lose by the absence of a beard obtains a full compensation, except in old age, by the greater advantage with which the mouth appears. Upon the whole, speaking from the experience of those Europeans who have worn a beard in other lands, it may be said that the law of this matter should be for every man to shave or not to shave, as his age, circumstances, pursuits, and inclinations might render the most convenient to him.

The practice of shaving probably originated at first from its being found that the beard afforded too good a hold to an enemy in battle. This is the cause assigned for the origin of shaving among the Greeks, about the time of Alexander; and in most countries we find that the practice is first adopted by military men, and that men of pacific and learned pursuits retain their beards much later. The Greeks continued to shave until the time of Justinian, in whose reign long beards became again fashionable, and remained in use until Constantinople was taken by the Turks. The Romans appear to have derived the custom of shaving from the inhabitants of Sicily, who were of Greek origin; for we find that a number of barbers were sent from thence to Rome, in the year 296 B.C.; and the refinement of shaving daily is said to have been first introduced by no less a person than Scipio Africanus. At the expiration of the Republic, beards had become very rare; and historians mention the alarm in which some of the emperors lived lest their barbers should cut their throats. For the sake of concealing the scars on his face, the emperor Hadrian wore a beard, and this, of course, brought that appendage again into use; but the custom did not long survive him, although his two immediate successors wore beards in the character of philosophers. Among the Romans, shaving did not commence immediately on the appearance of the hair; the youth was suffered to acquire a small beard, and the operation of shaving was performed for the first time with a great deal of ceremony. Persons of quality had the operation performed for their sons by persons of greater quality than themselves; and this act rendered such persons the adoptive fathers to the children. The day was a festival: visits of ceremony were paid to the young men, who

received presents from their friends; and the first growth of the beard was solemnly consecrated to some deity—usually to the household gods.

The ancient German nations shaved the beard, except that on the upper lip; and what is expressly stated of one tribe was probably true of the rest—that they allowed no young man to shave or cut his hair until he had killed an enemy in battle. The ancient Goths, Franks, Gauls, and Britons, also wore only mustaches, the hair of which they suffered to grow to a very inconvenient length. The Saxons wore long beards, but, at the introduction of Christianity, the laity began, by degrees, to imitate the clergy, who were shaven; they, however, still retained the hair on the upper lip. The Danes appear to have worn their beards. Sueno, the first Danish chief who invaded this country, was surnamed "Fork-beard." The Normans shaved their beards entirely, and looked upon the appendage with so much distaste, as an indication of misery and distress, that they were the great apostles of shaving wherever they came. Accordingly, they endeavoured to persuade or compel the English to shave the hair of their upper lips. The great majority yielded to the necessity of the case, but there were many who chose rather to leave the country than resign their whiskers. However, beards again had their day. In the fourteenth century they became again fashionable, and continued until the beginning of the seventeenth. At the latter date their dimensions had become much contracted, and they were soon after relinquished, the mustaches only being retained; and at the commencement of the last century the practice of shaving the whole face had become universal. In these latter changes the example of France was followed. In that country, Henry IV. was the last sovereign who wore a beard, and he had a tolerably fine one. He was succeeded by a beardless minor, in compliment to whom the courtiers shaved all their beards except the mustaches. The succession of another minor confirmed the custom, and ultimately the mustaches also disappeared. The Spaniards, more tardily influenced by French example, kept their beards until the French and English were beginning to relinquish even mustaches. Perhaps they would have kept the cherished appendage to this day, but a French prince (Philip V.) mounted the Spanish throne with a shaved chin. The courtiers, with heavy hearts, imitated the prince; and the people, with still heavier hearts, imitated the courtiers. The popular feeling on the subject, however, remains recorded in the proverb, "Since we have lost our beards we have lost our souls."

With respect to beards among ecclesiastics, as the practice has somewhat differed from that of the laity, it requires to be separately noticed. Sometimes the clergy of the Western church were enjoined to wear beards, under an impression that shaving was an effeminate practice, and that a beard well became the gravity of the ecclesiastical character; and at other times shaving was enforced, from an idea that pride was too apt to lurk beneath a venerable beard. It is related that Guillaume Duprat, Bishop of Clermont, who assisted at the Council of Trent, and built the College of the Jesuits at Paris, had the finest beard that was ever seen. It was too fine a beard for a bishop; and the canons of his cathedral, in full chapter assembled, came to the barbarous resolution of shaving him. Accordingly, when next he came to the choir, the dean, the *prevôt*, and the *chantre*, approached with scissors and razors, soap, basin, and warm water. He took to his heels at the sight, and escaped to his castle of Beauregard, about two miles from Clermont, where he fell sick from vexation, and died.

By the statutes of some monasteries, it appears that lay monks were to let their beards grow, but that the priests were to shave. The beards of all that were

received into the monasteries were blessed with a great deal of ceremony; and the prayers are still extant which were used in consecrating the beard to heaven when an ecclesiastic was shaven. The ecclesiastics of the Greek Church were great sticklers for beards, and when the rupture between that and the Church of Rome was completed, the latter went more decidedly than it had previously done into the opposite extreme. Nevertheless, the regulations about shaving seem not to have been rigidly enforced on the higher dignitaries of the church, for we frequently find that both cardinals and bishops wore their beards: Cardinal Pole, and Bishop Gardiner, in the reign of Mary I., had remarkably fine ones. The early bishops and fathers of the Protestant Church usually wore their beards; but Martin Luther himself, who had been a monk, is always represented without such an appendage.

It would not be well to leave this subject without observing the remarkable fact that, in most countries where the beard is allowed to grow, the hair of the head is shaven. This is particularly the case in Mohammedan nations, in which, in general, only a small tuft of hair is left on the crown of the head, for the purpose of affording their Prophet a hold in raising them to another world hereafter. The operation of shaving the head is performed by the Oriental barbers with great dexterity, but they are utterly at a loss how to deal with the hair of the head in any other manner. A European will find it difficult, in most Mohammedan towns,—except in the sea-ports of the Mediterranean,—to find a man who will undertake to cut his hair, and if he finds one he is obliged to give him very minute instructions. Such is the force of habit, that the writer of this article, who, in some of its details, speaks from experience, can remember no instance in which a Mohammedan barber, however well apprised of what was required of him, failed to come to his task with all his usual apparatus—his basin, his soap, his strop, and his razors.

MINERAL KINGDOM.—SECTION XXIII.

IRON.—No. II.

THIS metal has not been found as a native mineral, in a pure state, except in very small quantities. Some rare specimens of it are met with occasionally in the cabinets of mineralogists, as objects of scientific interest. But huge masses of malleable iron have been found in different parts of the earth, lying upon the surface of the ground, or partially imbedded in it; the most remarkable of which are those which were met with in Siberia and in South America. The Siberian mass is described by Professor Pallas in his 'Travels in different parts of the Russian Empire,' in the year 1772. It was discovered in 1750 by a peasant, on the top of a mountain, in the interior of Asiatic Russia, in the district of Krasnojarsk (lat. 56, long. 92, E.), on the borders of the river Enisseï, quite detached from any other mineral substance at all resembling it, and was looked upon by the Tartars with superstitious fear as having fallen from heaven. A Cossack blacksmith, whose cupidity overcame his religious scruples, with considerable difficulty removed the mass to his village, a distance of thirty versts, or about twenty miles, for the purpose of using it in his forge. It weighed forty-two poods, which is equal to 1512 lbs.; but when Professor Pallas was in the country, a part only of it had been used. The South American mass was found in the jurisdiction of Santiago del Estero, 800 miles north-west of Buenos Ayres, and was much larger, for the weight was estimated as equal to thirteen tons, or 29,120 lbs. All these masses of meteoric iron, as they are called, are totally distinct in composition from any ore of iron found in the bowels of the earth: they have all a great similarity of composition one to another, and contain a

proportion of nickel, a metal of great rarity. There is every reason to believe that they belong to that class of remarkable bodies called meteoric stones, or aërolites, which, from time to time, have fallen upon the earth from the atmosphere. A mass of iron of this description was actually seen to fall from the air at Agram, in Croatia, in 1751, which had the appearance of chains welded together. Further particulars relative to meteoric iron will be found in an article in the 'Penny Cyclopædia,' under the word *Aërolites*, written by the author of these communications, and to which we refer all those who have not before heard of stones falling from the air, and who may, not unnaturally, feel somewhat incredulous about so extraordinary an event.

The ores of iron are numerous, but many of them form only objects of interest to the scientific mineralogist. There are about eight different kinds of these which occur in sufficient quantities to pay for the expense of erecting furnaces to work them, in order to extract the metal. The ore from which nineteen-twentieths of the iron manufactured in the United Kingdom are obtained, is that kind commonly called argillaceous, or clay-ironstone. It is of various colours,—grey, brown, and bluish-grey; and, to an uneducated person, would not appear different from an ordinary stone, except on account of its greater weight. It is described in most works on chemistry and mineralogy; but the most detailed accounts we have of the various qualities of this ore, and of the processes for obtaining the metal from it, are those of Mr. Mushet and Dr. Colquhoun. The former, who is one of the most experienced ironmasters in the United Kingdom, published a series of memoirs in the 'Philosophical Magazine,' beginning in 1798, and continuing for several years, which are full of the most valuable practical information, by a person thoroughly conversant with all the science of his subject. Dr. Colquhoun's treatises, which are also extremely valuable, will be found in Brewster's 'Philosophical Journal' for 1827. The iron exists in clay-ironstone in combination with oxygen gas, in that proportion which chemists designate the *protoxide*, and with carbonic acid gas, and mixed with small quantities of earths, carbonaceous matter, and sometimes sulphur. Dr. Colquhoun gives the results of the analysis, or chemical examination, of the composition of nine different varieties, from which it appears that the ironstones vary considerably in quality. One hundred grains of the several ores were found to contain of

Protoxide of Iron.....	from 35 to 53 per cent.
Carbonic Acid Gas.....	26 35 "
Silica (the pure earth of flints).....	1 20 "
Alumina (the pure earth of clay).....	2 8 "
Lime.....	2 8 1/2 "
Magnesia.....	1 1/2 6 1/2 "

besides minute quantities of carbon, sulphur, and the metal called manganese. The specific gravity of the ores varied from 2.80 to 3.50; distilled water of the same bulk being 1.00.

The great deposits of clay ironstone are in the coal-measures; that is, in the strata of shale, clays, sandstones, and slates, which alternate with the layers of coal. It has been well observed by Mr. Conybeare, in his 'Geology of England and Wales,' that "the occurrence of this most useful of metals in immediate connexion with the fuel requisite for its reduction, and the limestone which facilitates that reduction, is an instance of arrangement so happily suited to the purposes of human industry, that it can hardly be considered as arising unnecessarily to final causes, if we conceive this distribution of the rude materials of the earth partially determined with a view to the convenience of its future use." Clay-ironstone is not confined to the coal-measures, but occurs frequently in some of the older strata, between the chalk and the coal-measures, and sometimes, though more rarely, in the tertiary

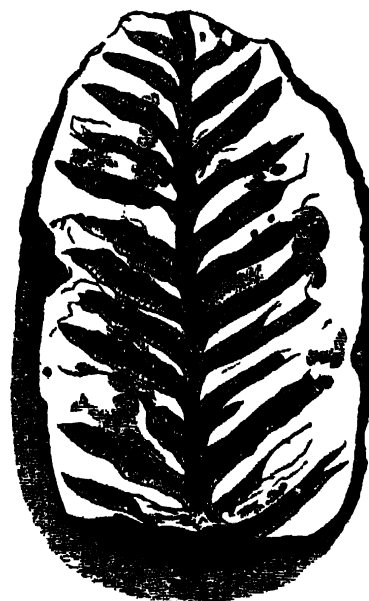
sedimentary deposits which lie above the chalk (see the diagram No. 1, in the 'Penny Magazine,' No. 51). The ore is often met with in thin continuous strata, but it seldom happens, when found in the coal-measures, that there is only a single stratum of it; there are usually several strata,—from ten to forty in the same tract of country,—the thickness of them varying from half an inch to sixteen inches; and they generally present, at the same time, differences in their chemical composition. Clay-ironstone occurs frequently in detached nodules, imbedded in the strata of clay or shale, varying in size from that of a bean to five feet in diameter, and half these dimensions in thickness, having, for the most part, a flattened form. They often lie together in one place, at regular distances, forming an almost continuous bed; but more usually the nodules are scattered promiscuously through the clay, but with their longer diameter parallel to the lines of stratification in the coal-measures. In weight they vary from an ounce to upwards of a ton. The size of the nodules most commonly found is about a foot in the longest diameter. They frequently contain shells, and impressions of plants similar to those met with in the shale of the coal-measures. The following specimens are from Chesterfield and Alfreton in Derbyshire:—

Fig. 1.



[Fig. 1. is a plant of the Fern tribe, called *Neuropteris* by fossil botanists.]

Fig. 2.



[Fig. 2 is a portion of a plant which Martin, in his 'Petrefacta Derbiensia,' considers to be allied to the Fir tribe.]

All the appearances which clay-ironstone exhibits, whether in layers or in nodules, show that it is not an igneous production, but that it was deposited by water. But the nodules are in no degree analogous to the rounded stones found in many of the strata, which are fragments of rock, the angles of which have been worn off by their being rubbed against each other in running water, like the stones in the bed of a river. The particles of the clay-ironstone must have been suspended in the fluid mass of mud that afterwards hardened into clay or shale, and must have separated from it, and collected together in the spheroidal nodules by some internal chemical action similar to that which takes place in the masses of clay, mixed with ground flints, prepared for making fine pottery and china. When these are allowed to stand unused for some time, it often happens that the particles of the powdered flint separate from the clay into detached, hard, stony nodules. The observation of this fact has thrown considerable light on the probable origin of the nodules of flint in chalk, a subject which was very obscure, and of which no satisfactory theory had previously been proposed.

In our next section we shall proceed to consider the method of obtaining the metal from clay-ironstone.

THE PYRAMID CEMETERY.

THE plan of a pyramidal structure, to be used as a cemetery, was laid before the public by Mr. Willson, an architect, in the year 1860. Although its claims to notice have not been more recently urged, we are informed that the architect does not consider the necessity for such a structure as he proposes superseded by the Kensall-Green Cemetery; nor does he doubt that the importance of its principle and the practicability of its execution will be more generally recognised than it appears hitherto to have been. For the neighbourhood of a large town, the principle is apparently a good one; but while we make every allowance for the unwillingness of Mr. Willson to have his design mutilated, we cannot but express our fear that many years must elapse before so grand an application of the principle will be carried into effect; and that the way for it must be prepared by the success of intermediate and humbler measures, which depart less from the existing modes of sepulture.

Mr. Willson appears to have felt very strongly the serious evil of interments in the midst of towns and in churches; but, in his views of a fitting remedy, he went farther than the framers of the cemeteries on the model of Père la Chaise. He thought that any plan recognizing the principle of inclosing plot after plot for burial grounds was essentially defective, and that it would only perpetuate the evils which were incurably attached to the present method, while it would ultimately encroach upon the most valuable garden-grounds and common-lands in the vicinity of the metropolis, greatly to the public disadvantage. Applying his mind, therefore, to the consideration of some plan not liable to such objections, he ultimately formed the design of "a metropolitan cemetery on a scale commensurate with the necessities of the largest city in the world, embracing prospectively the demands of centuries, sufficiently capacious to receive 5,000,000 of the dead, where they may repose in perfect security, without interfering with the comfort, the health, the business, the property, or the pursuits of the living." The following are the outlines of the plan by which it was proposed to effect so great an object; and which is calculated to give 1000 acres for the purposes of interment upon an area of 18 acres only, by means of an ascending structure.

This structure was proposed to be a pyramid faced with granite, and surpassing in magnitude the great pyramid of Egypt. In order to obtain a general idea of what is intended, the architect, in his prospectus, requests his readers to imagine a massive square building gradually diminishing to its apex, the base of which occupies an area as large as Russell Square, and which towers to a height considerably above that of St. Paul's, and exhibits on every side, to its very summit, a vast flight of stairs; the whole faced with square blocks of granite, and surmounted by a plain and appropriate obelisk, having a circular stone staircase, and terminating in an astronomical observatory. The inclosure surrounding the pyramid would contain several acres beyond its base, which might be tastefully laid out for the reception of cenotaphs and monuments. It is considered that the bold, monotonous, and sombre background of the pyramid would present an ample field for the display of such works of the statuary as might be destined to enrich this interesting cemetery, being, by contrast, a fine relief to minute objects of art. The inclosure would also contain a small plain chapel, and a register-office opposite to correspond; four neat dwellings would also be provided for the keeper, the clerk, the sexton, and the superintendent. Against the boundary-wall open arches would be constructed, which would support a terrace-walk along the four sides, with four watch-towers, or covered seats, at the extreme angles. The approach would be through a lofty Egyptian portal. Altogether the completed cemetery would apparently form an object of sepulchral magnificence to which the world has no equal. "This grand mausoleum," says the architect, "will go far towards completing the glory of London. It will rise in majesty over its splendid fane and lofty towers,—teaching the living to die, and the dying to live for ever." Our own feeling, however, is averse to consider cemeteries with any strong reference to their magnificence or picturesque beauty; and we shall consider that cemetery most entitled to our praise which best accomplishes, not its incidental, but its proper objects. What they are, we have taken former occasions to state; and shall now endeavour to show, by more detailed statements, the construction of a cemetery designed to contain the mortal remains of 5,000,000 of people.

The foundation of the pyramid will consist of an entire floor of solid masonry, which will be surrounded by wide-arched, concealed sewers, to receive the torrents of rain from its surface. The side of the base, at the ground-line, will extend nearly 900 feet, ascending to one diameter in height, which, perspective, will give the proportion of an equilateral triangle. The walls and arches of the catacombs are to be constructed with hard-burnt, grey, stock bricks, and externally faced with granite or limestone, not less than six inches in thickness. All the avenues and passages are to be paved with rubble-stone, which the refuse of the exterior will supply. The former will have external openings on the four sides at every stage. The entrances or avenues to the cemetery are four (north, south, east, and west), in the centre of the sides, and intersecting each other in the middle of the edifice, where is to be the shaft for general ventilation, having also the position, and apparently the office, of a king-post to the whole structure. As the four principal avenues which thus intersect each other at every stage are wider than the ordinary passages, their side walls will also be of greater thickness than the partition walls of the catacombs,—namely, a yard and a half thick at the base, diminishing every second or third stage upwards to the exterior surface, where they must not be less than two bricks thick to receive the stone facing. The most extensive stages are of course the two below

the surface of the ground, either of which would consist of fifteen quadrangles of double tiers of catacombs, and one single tier towards the exterior. The total number of catacombs exhibited in this single stage is 6,140; and as each catacomb will contain twenty-four coffins, as many as 147,360 may be deposited in this one stage. As this stage is near the base, and the dimensions of the stages contract in the upward progress, this is necessarily the highest amount which any stage will contain. There are ninety-four stages in all, and the uppermost will afford twenty catacombs, or room for 480 coffins.

Having thus stated the horizontal arrangement of the catacombs in the pyramid, we now proceed to view its perpendicular structure. Surrounding the shaft, and also near to the chief avenues, inclined planes of gentle ascent will be constructed, from stage to stage, in lieu of stairs, to facilitate interments, and for the conveyance of materials: those near the sides will be lighted from the exterior. The shaft will be chiefly used for the purpose of raising coffins to the higher catacombs, and to those vaults which are in immediate proximity with it. The walls of the shaft must be radiated, and so constructed as to resist weight and pressure,—being the great abutment of every pier, and of every groined arch throughout the massive edifice; serving the threefold purpose of the main buttress, the general ventilator, and the efficient vomitory, should such a provision be found necessary, for the impure exhalations that may pass by filtration through the walls of the numerous cells. It is also connected with every avenue and passage in the pyramid, and being open from the foundation upwards, and terminating with lifting gratings at every stage, to prevent accidents, it will give ready access to the two stories or stages of catacombs underground, and the ninety-two above ground. These will contain, altogether, 215,296 catacombs, which will afford accommodation for 5,167,104 large-sized coffins, which will be closed up and sealed for ever when interments take place; and stone tablets will be placed on the surface, with inscriptions explanatory of the name, rank, age, and residence of the deceased. The architect compares the appearance of the section to that of a beehive, and considers that the work would possess the compactness of the honeycomb, which it so nearly resembles. It would, at the same time, possess all the elements of duration, “and could only be affected by the convulsions incident to nature; and may be, therefore, said to be almost as immovable and imperishable as the globe itself. To trace the length of its shadow at sun-rise and at eve, and to toil up its singular passages to the summit, will beguile the hours of the curious, and impress feelings of solemn awe and admiration on every beholder.” To the idea which the reader will already have formed of the capacity of this immense mausoleum, we may add that, if 40,000 coffins were deposited in it every year, it would not be full in less than 125 years; and, consequently, that if the number were only 10,000, it would take 500 years to fill it up.

The architect estimates the expense of erecting such a cemetery at two millions and a-half; and if it should be considered impossible to raise such a sum, he suggests that a progressive mode of erection might be adopted, by which the ultimate attainment of the object in view would be quite as well secured. The pyramid might thus either be the accumulating work of ages, or otherwise it might be erected in nineteen or twenty years;—its progress wholly depending on the annual supply of funds; and it might be confidently anticipated that these would rapidly increase in proportion as the practicability of the undertaking became apparent. The immense sum mentioned is allowed, on the first view, to be rather discouraging. But Mr. Willson enters into detailed statements to show that his plan is not less distinguished

for its economy than for its practical utility. He assumes the number of burials yearly to be 80,000, and the average cost of each to be 5*l*. These are certainly very low estimates, but they afford an annual expenditure of 150,000*l*., or 15,000,000*l*. in 100 years; while the pyramid, in which more than an equal number of dead might be deposited for a longer period, would cost but 2,500,000*l*., affording to the public a saving of 12,500,000*l*. sterling in one century. It is calculated that the sale of catacombs in anticipation would more than equal the cost of the entire construction; and if the average cost of each interment be estimated at only 3*l*. 10*s*., the proprietors would ultimately realize a profit of 15,000,000*l*. by the concern.

In his ‘Prospectus,’ and other papers, for which we are indebted to the kindness of the architect, he applies himself to answer the objections which had been made to the plan. We really do not see much in these objections, except in one, which is rather, however, a suggestion, to the effect that two or four pyramids, half the diameter of that to which our statement refers, would be a great saving of expenditure, and therefore more advantageous to the public than that which is proposed. If we understand correctly the dimensions which this pyramid would bear, its height would be about two and a-half times as great as that from the ground to the cross of St Paul’s. It would still, therefore, exceed the height of that structure were it reduced one-half, as suggested. But Mr. Willson demonstrates very clearly that the great economy of the pyramid wholly depends upon its magnitude, and that the cost of the great pyramid would not equal that of four of half its diameter, while in its capacity it is equal to eight: which eight, thus brought under one apex, will require no more foundation than the four, and only half the quantity of drainage, and one-fourth of the inclosure; besides the saving which would necessarily result from the construction of one pyramid, and the existence of one establishment, in the place of four.

We have not seen any strong objection to the principle of the measure; but it is to be feared that, between the difficulty of raising sufficient funds for its speedy completion on the one hand, and the consideration that it might otherwise take two or three generations to bring it to a completion, on the other, the pyramid is not likely, for several years to come, to be seriously undertaken.

HAWKING.—No. I.

HAWKING, or Falconry, is the art of training and flying hawks for the purpose of killing or catching other birds.

Though for many centuries the favourite amusement of the kings, nobles, and gentry, all over Europe, it has now been so long and entirely out of fashion in England that few persons know anything about it, whilst many of the secrets and niceties of the art, that could not be, or were not, preserved in books, have been wholly lost. Hawking, indeed, is one of those pastimes of the olden times that have everywhere retreated before the advance of civilization. Among us, books, pictures, prints, intellectual resources and amusements, the invention of gunpowder and the musket, and the gradual improvements made, from the rude, heavy match-lock, to the light, portable, and sure fowling-piece, have been fatal to it. Shooting gives as much exercise and more excitement, and is a surer way of bagging game than the methods of the falconer; and now-a-days not even the most sporting of our country squires find it necessary, in order to pass their time and amuse themselves, to be continually in the field, or employed in making preparations for it. At a period in which intellectual resources were extremely

rare, and few even of the nobility (to whom the sports of hunting, hawking, &c., were long confined) were capable of reading a book, the frequent attention and great length of time required to train a falcon rendered the occupation of great value to the idle rich. It helped them to get through the twenty-four hours, which, when not employed in the less commendable sports of war, seem to have hung heavily on the princes, knights, and barons bold of the middle ages. Those men were much to be pitied in their very vices, for the human mind must be excited and employed by some means, and what means, in those barbarous ages, had they within their reach but fighting, hunting, hawking, and carousing? Where the improvements of modern ages have not reached, the art of falconry and its constant practice still obtain. It is still a common amusement among the Turks in some parts of Asia Minor; among the Persians, the Circassians, the wandering hordes of Tartars and Turkomans; it forms one of the favourite amusements of some of the native princes of India; it is not unknown in the northern provinces of China; and is to be found more or less prevalent in several other barbarous or half-civilized countries.

Hawking appears to have been first introduced into England from the north of Europe during the fourth century. Our Saxon ancestors became passionately fond of the sport, but do not appear to have made great progress in the art of training the birds. In the eighth century, one of our kings of that race caused a letter to be written to Winifred, Archbishop of Mons, begging the dignitary to send him some falcons that had been well trained to kill cranes. The month of October was more particularly devoted to the sport by the Saxons. We were indebted to our fierce invaders, the Danes, for many improvements in falconry. Denmark and, still more, Norway were always celebrated for their breeds of hawks, and the natives of those countries had attained an extraordinary degree of skill in the art of training them. In the eleventh century, when Canute, King of Denmark and Norway, ascended the English throne, the sport became more and more prevalent. We are not aware of what restrictions were imposed under the Saxon or Danish rule, but after the conquest of our island by William of Normandy, none but persons of the highest rank were allowed to keep hawks. Cruel laws, with respect to field-sports, were framed and rigorously executed by the first princes of our Norman dynasty. According to the liberal views of those times, the people were held utterly unworthy of partaking anything, except the air of Heaven, in common with their noble oppressors. The life of a serf was of less value in the eyes of a Norman baron than that of a buck, or a hound, or a hawk; and in those days the mass of what we now call the people were serfs and slaves. As to the keeping of falcons, the great expense attending it put it entirely out of the power of the commonalty, but the prohibitive Norman law was probably meant at first to extend to such of the Saxon landholders as were rich and remained free, but had no rank or nobility according to the Conqueror's estimation. On the contrary, in the days of King John every freeman was allowed to have a pair of hawks, sparrow-hawks, falcons, eagles, and herons, in all *own woods*.

The numerous laws referring to hawking alone, enacted during successive reigns, prove the vital importance our ancient rulers attached to the matter.

Hawks, however docile and well trained, were at times apt to fly away from their noble owners and be lost. Edward III. therefore made an express law, according to which any person finding a hawk, tercelet, laner, laneret, or any other species of hawk, was to carry it immediately to the sheriff of the county, who was immediately to cause a proclamation to be made in all the principal towns in the county: the owner of

the lost bird, if discovered, was to receive it back from the sheriff on payment of the cost incurred for maintenance,—if not claimed in four months the hawk was to become the property of the finder, if the person who had found it were of proper rank, but if the finder were an ignoble and unqualified person, then the hawk was to become the property of the sheriff, who, however, was to give the poor man something for his trouble. Any attempt of the finder of the hawk to secrete or appropriate it was, like stealing a hawk, to be punished as felony.

The dignitaries of the church, who, in spite of the canonical interdictions of such pastimes, were almost as fond of falconry as the lay-nobility, occasionally launched their spiritual thunder at the heads of hawk-stealers. It is on record that one of Edward III.'s bishops excommunicated certain persons for stealing a hawk that was sitting upon her perch in the cloisters of Bermondsey, in Southwark. It was argued, in support of this severity, that the guilt of sacrilege was added to that of theft, for the bird was purloined during the performance of divine service in the choir;—but what probably aggravated the ecclesiastic's choler was the simple fact that the hawk was his own.

Our old poet Chaucer, who flourished at this time, frequently satirizes the clergy on their rage for the secular pastimes of hunting and hawking. In the 'Canterbury Tales,' he represents a monk as being more learned in riding and hunting than in divinity; and in the 'Ploughman's Tale' he taxes the monks generally with worldly pride, because they ride high-bred horses like knights, having their hawks and their hounds with them. We find precisely the same style of censure and satire in some of the oldest writers in France and Italy, where hawking was just as eagerly followed by the clergy as in England. Ricordano Malespina, a Florentine chronicler of the thirteenth century, talks of a churchman's hunting and hawking like a layman. In the following century, the frequent allusions to hawking in Boccaccio, Villani, and other writers, show how prevalent was the sport in Italy. We also gather from those early authors that the Italians paid enormous prices for their falcons, and that falconry was the favourite pastime of all the princes and nobles of that country. They talk of the falcons of the Emperor Frederic, King of Naples and Sicily; and, later, of Charles of Anjou, who was wont to go hawking attended by all his barons.

In Germany, in Hungary, in Poland, in Russia, the sport was followed with still more ardour. The Russians were in the habit of flying snow-white hawks, of an admirable breed, which were procured from Siberia at an extravagant price. In short, all over Europe, hawking, with hunting, formed the main resource of all idle, ignorant minds, and was long considered as the exclusive attribute of noble blood. The tokens and proofs of nobility or distinction, in different ages and countries, would form a very ludicrous list. During the middle ages, a European showed his rank by having a hawk on his fist, as a Chinese Mandarin, even of our own days, claims the honour due to learning by letting his finger-nails grow to an enormous length. A knight seldom stirred from his house without his falcon on his wrist, and his hound at his heels; and, when his hunting and hawking were over for ever, if he did not die in the field of battle, one of the two animals was generally carved on his monument—the dog at his feet, or the falcon on his hand. At the first resurrection of the art of painting in Italy and Germany, and for more than two centuries after, a portrait was seldom executed without the painter's introducing a falcon, or a gyrfalcon, in it. We have seen some old Italian frescoes in which a long line of knights and ladies were painted, all in the same attitude, with full-front faces, and every

one of them holding a bird—thus looking more fiercely but as monotonously as farmer Flamborough's family picture in the 'Vicar of Wakefield,' in which every individual held an orange. Sebastian Brandt, a German, the author of the Latin poem 'Stultifera Navis,' (the Ship of Fools) complains that, in his time (about the year 1485) the gentry used to take their hawks and hounds to church with them. Hence the devotions of the more religiously inclined were interrupted by the screams and yells of the birds and beasts, and, as Barclay, Brandt's translator, renders it,

"The whole church was troubled by their outrage."

A little before the publication of the honest German's satire, a curious book, generally attributed to Julian Berners, sister of Lord Berners, and prioress of the nunnery of Sopewell, made its appearance in England. It consists of two tracts, one on hawking, and the other on heraldry. We merely mention it here to show the estimation in which falconry was held among us at that time, but we shall refer to the volume, in a future Number, for some curious erudition on the subject. It was written in the reign of Richard III. The sport suffered no decline on the accession of the Tudors. Henry VII. made laws about hawking, as did also Queen Elizabeth; and Henry VIII. practised the gentle craft until he grew too fat and unwieldy. We are told by the old chronicler Hall that, on one occasion, our wife-killing king was well nigh losing his life through his love of the sport. It was the custom not only to cast off the falcon and follow it on horseback, but also, where the ground was broken, intersected by water or marshes, or covered with wood, to pursue the pastime on foot. In the latter case, each sportsman carried a stout pole, to aid him in jumping over rivulets and ditches. Now, one day, as Henry was hawking in this manner, at Hitchen, in Hertfordshire, while vaulting over a ditch, his pole broke, and he fell head downwards into the deep mud, which almost smothered him; and there he would have died but for one John Moody, a serving-man, who, happening to be near, leaped into the ditch and rescued the king. "And so," says old Hall, "God in his goodness preserved him."

During the reign of this gracious monarch, a person of high rank said to Richard Pace, Henry's secretary, "It is enough for the sons of noblemen to wind their horn and carry their hawk fair, and leave study and learning to the meaner people." But those were "the good old times." Queen Elizabeth, who, with all her learning and talent, had no objection to bear-baiting, hunted frequently, and, it appears, occasionally hawked with the ladies of her court. A letter written to her by Sir Walter Raleigh, when she was about sixty years old, is still extant. The flattering knight, who was absent, and rather in disgrace at the time, alludes to her sylvan sports, and compares the old lady and her maids of honour, in their stiff ruffs and fardingales, to—the goddess Diana and her nymphs. There is a portrait of her successor, James I., done when he was a boy, in which that sapient prince is represented with a small hawk on his hand. An amusing resemblance may be detected between the look and expression of the bird and the countenance of James. Later in life, when he wrote his pedantic book of advice to his eldest son Henry, Prince of Wales, after recommending many exercises, hunting, &c., he adds, "As for hawking I condemn it not, but I must praise it more sparingly, because it neither resembleth the warres so near as hunting doeth, in making a man hardie and skillfully ridden in all grounds, and is more uncertain and subject to mischances; and, which is worst of all, is therethrough an extreme stirrer-up of the passions."

As popular rights of all sorts became enlarged, and the odious distinctions of the feudal system gradually

disappeared, a man could sport his falcons without being a noble. In the seventeenth century, hawking was classed among the amusements of squires and country gentlemen generally. 'The Cornish Comedy,' which was written and played about 1690, contains the following apposite passage:—"What is a gentleman without his recreations? With these we endeavour to pass away the time which would otherwise lie heavily upon our hands. Hawks, hounds, setting-dogs, and cocks, with their appurtenances, are the true marks of a country gentleman." It is, however, worth while to remark how disrespectfully and contemptuously old Burton, in his 'Anatomy of Melancholy,' speaks of those not of "high degree" who follow the sports of the field. "Hunting and hawking," says he, "are honest recreations and fit some great men, but are not for every base, inferior person, who, whilst they mount their falconers and dogs, and hunting nags, their wealth runs away with their hounds, and their fortunes fly away with their hawks." To condemn thoughtless extravagance was good and right in the seventeenth century, and is so still, but in our days few moralists would venture on the antithesis of "great men" and "base, inferior persons."

The engraving at the foot of this article represents a falconer carrying two lesets of hawks to the field. (Hawks are generally classed in *lesets*, and *casts of toure*. A cast meant two hawks, a lese three. These technical words, and many others of less easy explanation, frequently occur in our old writers.)



[Going to the Field. From an Engraving by Reldinger.]

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THE BOA CONSTRICTOR.



[Attack of the Boa Constrictor on a Sleeping Lascar.]

"THE immense number of venomous snakes in all parts of India are a vast check to the enjoyment of every person residing there; to the timorous, apprehension and fear attend every step; even within their houses there is danger of meeting with them; and the most courageous and strong-minded cannot help often feeling uneasy at the presence of these reptiles*." The largest of these terrible creatures is the boa constrictor; but it is not considered by the natives the most formidable, because its bite is not venomous, and its great size somewhat diminishes the danger of surprise. Some account of the boa constrictor has been already given in No. 36 of the 'Penny Magazine,' and, in our present statement, we shall, as much as possible, avoid repeating the information already supplied.

The name *boa* is not of recent introduction. It occurs in Pliny, who doubtless intended by it some one of the larger species of European snakes; the name being probably derived from the notion, which is still very common among the peasantry of Europe, that these reptiles introduce themselves among the herds to suck the cows. The place which the boa should occupy in a regular system is not well determined, and this arises from the circumstance that travellers have entered much into the history and habits of the larger species of serpents without carefully describing the animals themselves. We cannot enter minutely into the question, but shall be content to follow Blumenbach in stating that the enormous reptile usually called the boa constrictor is found in the East Indies and in Africa, and does not appear to differ much from the Amaru of South America, which was worshipped by the Antis of Peru. It is the largest of serpents. Its average length appears to be about thirty feet, but it sometimes attains to forty, fifty, or even sixty feet; it therefore occupies the relative position among reptiles which the elephant does among quadrupeds, and the whale among the inhabitants of the sea. In the venomous species, the poison fangs are in the upper jaw,—somewhat larger than the other teeth, projected forward in the act of biting, but at other times disposed along the roof of the mouth. These are wanting in the *boa*, but otherwise the teeth are disposed much in the same manner as in other serpents,—being long, sharply pointed, and inclined backward;—of no use for mastication, but evidently intended only for the purpose of holding the prey. The genus is distinguished by having a hook on each side the vent; the body is compressed, inflated towards the middle; the tail is prehensile; the scales small, particularly upon the back of the head. The ground colour of the *boa constrictor* is yellowish-grey, with a large chestnut-coloured interrupted chain, extending down the back from the head to the tip of the tail, and sub-trigonal spots down the sides. The name "*constrictor*" is derived from the terrible muscular power by which it crushes to death the unfortunate animals embraced in its folds. It is true that most serpents possess, in some degree, this constrictive power, but it is not commonly used by the smaller species in seizing their prey, the mouth and teeth alone sufficing for the purpose.

Requiring food only at long intervals, the *boa constrictor*, like most other serpents, spends the greater part of its life coiled up asleep, or in a state of stupor, in which, if it has recently been gorged with food, it may be overcome with little danger or difficulty, although to attack it in an active state would be madness. But when it becomes hungry, the gigantic reptile assumes an activity strikingly in contrast with the loggish inertness it before exhibited. When properly in wait for prey, it usually attaches itself to the trunk or branches of a tree, in a situation likely to be visited by quadrupeds for the sake of pasture or water. In this

* Johnson's 'Indian Field Sports,' p. 177.

posture it swings about, as if a branch or pendent of the tree, until some unhappy animal approaches, and then, suddenly relinquishing its position, it seizes the unsuspecting victim, and coils its body spirally around the throat and chest. After a few ineffectual cries and struggles, the poor entangled animal is suffocated and expires. It is to be remarked that, in producing this effect, the serpent does not merely wreath itself around the prey, but places fold over fold, as if desirous of adding as much weight as possible to the muscular effort; these folds are then gradually tightened with such immense force as to crush the principal bones, and thus not only to destroy the animal, but to bring its carcass into a state the most easy for its being swallowed. This having been effected, the *boa* addresses himself to the task of swallowing the carcass. Having pushed the limbs into the most convenient position, and covered the surface with its glutinous saliva, the serpent takes the muzzle of the prey into its mouth, which is capable of vast expansion; and, by a succession of wonderful muscular contractions, the rest of the body is gradually drawn in, with a steady and regular motion. As the mass advances in the gullet, the parts through which it has passed resume their former dimensions, though its immediate position is always indicated by an external protuberance. Their prey generally consists of dogs, goats, deer, and the smaller sorts of game. Bishop Heber considers as quite untrue the stories of their attacking such large animals as the buffalo or the chetah; but men are by no means exempt from their attacks. This is shown by the following anecdote, which, with the engraving in illustration, is copied, by permission, from the new volume of the 'Oriental Annual.' The original picture from which the engraving is taken was painted by Mr. W. Daniell, and is in the possession of the Baron de Noul de la Loyrie.

"A few years before our visit to Calcutta, the captain of a country ship, while passing the Sunderbunds, sent a boat into one of the creeks to obtain some fresh fruits which are cultivated by the few miserable inhabitants of this inhospitable region. Having reached the shore, the crew moored the boat under a bank, and left one of their party to take care of her. During their absence, the lascar, who remained in charge of the boat, overcome by heat, lay down under the seats and fell asleep. Whilst he was in this happy state of unconsciousness, an enormous *boa constrictor* emerged from the jungle, reached the boat, had already coiled its huge body round the sleeper, and was in the very act of crushing him to death, when his companions fortunately returned at this auspicious moment; and, attacking the monster, severed a portion of its tail, which so disabled it that it no longer retained the power of doing mischief. The snake was then easily despatched, and found to measure sixty-two feet and some inches in length."

In Brazil, according to Koster, an opinion prevails that whoever has been bit by the *boa constrictor* has nothing to fear from any other snake. The notion is probably a prejudice.

CORFU.

Corfu is the most northern, and first in rank, though not the largest, of the seven islands which compose the republic of the Ionian Islands; and, from its strength and position, is considered the key of the Adriatic. It lies along the coast of Albania, from which it is separated by a channel, varying from twelve to thirteen miles wide. Its length, in the direction of north-west and south-east, is about thirty-five miles, and of a very irregular breadth; the surface is covered with mountains, moderately high, rugged, and detached, inter

persed with beautiful plains, thickly studded with olive groves and vineyards, and the scenery, if not very romantic, is certainly very pleasing. Compared with the natural advantages of this island, neither agriculture nor commerce are sufficiently extended,—partly consequent on the innate indolence of the natives, and partly on the restraints which have heretofore been imposed on them by their conquerors, the evil effects of which it will require some time to remove.

The town is situated on the eastern side of the island, about four miles from the Albanian coast; the entrance to the port is strikingly beautiful;—the imposing appearance of the batteries—the two lofty citadels which flank the town—the port gradually opening on the view—and the small island of Vido, formerly shaded with olive-trees, but now bristling with cannon—all announce the approach to a place of great importance. To the eastward are seen the rugged mountains of Albania, with the stupendous range of Pindus soaring above them, and adding magnificence to the beauty of the scenery which the island itself presents. The bay offers a secure anchorage for any number of vessels of the largest class, and is easily accessible either from the northward or southward; the port is small, but there is a mole, within which galleys and small vessels can lie in the greatest safety. The Channel of Corfu, being surrounded by high land, is subject to calms; but, during the summer months, the sea-breeze generally prevails throughout the day, and alleviates the heat, which is otherwise intense, though the climate is, on the whole, very healthy. Thunder-storms, accompanied by vivid and dangerous lightning, are very common, and have frequently occasioned much damage.

Of late years, the town has been greatly improved;—sewers have been constructed, the roads macadamized, and the low, unhealthy houses and narrow streets begin to disappear before the more improved style of modern building. The streets are built with regularity: there are several good inns, a small theatre for the performance of Italian operas, and a vast number of churches, most of which have been built by private individuals. Of these the richest is that of St. Spiridione, where are deposited the remains of that saint, the patron of the town; his body (said to be preserved entire) is in a silver shrine, richly decorated with precious stones, and the Greeks, who are equally bigoted, credulous, and superstitious with those of the Latin Church, are continually making offerings to this shrine. The festival of this saint is celebrated with the greatest pomp; the procession is attended not only by the Greeks but by all the principal British residents—the garrison under arms, and saluted by the batteries. Thousands from all parts, not only of Corfu, but of the other islands, flock into the town for the occasion. The night of Holy Thursday is especially devoted to processions;—each church and chapel has its own, and a kind of emulation for excellence prevails, so that the blaze of wax tapers rivals the light of day. The season of the carnival is kept up with great gaiety. The religion of the state is that of the Greek Church, at the head of which is the protopapas, elected by the nobility and clergy; he possesses episcopal powers, but is dependent on the patriarch of Constantinople;—his term of office is only for five years, when he retires undistinguished from the body of the clergy, save by the privilege of wearing some peculiar ornament to his dress.

Between the citadel and the town is a fine esplanade, planted with trees, forming the evening promenade of the inhabitants, which is generally enlivened by one of the regimental bands; it is ornamented at one end by a very pretty Grecian fountain, and at the other stands the palace of St. Michael and St. George (recently erected of Maltese stone), the residence of the British Lord High Commissioner, and where the

senate hold their sittings. The old Venetian palace, standing at the foot of the citadel, has been converted into an university, which was opened in 1824, on the most liberal principles, and the expenses of the student are but trifling. The dress of the professors is an imitation of the ancient Greek philosophers, and that of the students, also from the antique, is at once both picturesque and classical. The success of this institution is amply repaying the most ardent expectations of its founders,—the classes being crowdedly attended, and the number of students constantly increasing. The Venetian senate forbade all establishments for public education, and made every attempt to banish the Greek language from these islands, and thereby to destroy all spirit of nationality. The Italian was the language of all public acts,—of the bar, and of the pulpit—and latterly became generally in use in private society. Venetian manners and customs became prevalent, and, in the city, those who aspired to any consideration adopted the dress as well as the habits of their masters; so that, even to this day, the Greek costume is only worn by the lower orders, or the country people. Nevertheless, Corfu may now be considered as one of the chief seats of Greek literature, and the best elementary works in the Romaine have issued from its press.

The citadel commands the town and harbour, and is entirely isolated by a deep mont, which admits the sea on both sides; the base of the hill is entirely enclosed by walls, within which are the barracks, hospitals, store-houses, and magazines, also quarters for some of the officers attached to the government. On the highest of the two peaks is a well-illuminated lighthouse, recently erected, and a telegraph which, in the time of the French, communicated to another on the highest point of the island, and that to the coast of Italy. On the citadel is displayed the flag of the Republic, which has the Union of England in the upper canton of a blue field, in which is emblazoned a lion rampant, holding seven arrows, emblematical of the seven islands. The place is entirely garrisoned by British troops, which, by treaty, were to be supported from the revenues of the Republic, an expenditure to which they have not been found adequate. The greater part of the fortifications were built by the Venetians, with whom Corfu was a post of great importance from its convenient situation at the entrance of the Adriatic. The Island of Vido has, however, been strongly fortified by the British;—here is the lazaretto, where the performance of quarantine is strictly enjoined.

This island, formerly known by the names of Drapana, Scheria, Phuracia, and Coreyra, was originally colonized by the Corinthians, about 750 years before the Christian era; they built a town, the remains of which may still be traced on the shores of the bay, immediately to the southward of the present port, where a suburb of the modern city now stands. It soon arrived at considerable importance, especially as a naval power; and it is remarkable that the first naval combat recorded in history occurred between this colony and the mother country. Homer notices them as the “well-rowing Coreyreans;” and about four miles to the southward of the town is a bay, where Ulysses is said to have landed after the Trojan war, in which is a rock still called “Ulysses’ ship.” In the Persian war, Coreyra sent sixty galleys to the Grecian fleet, and its alliance was courted by the various petty republics of the continent. That the Coreyreans were justly proud of their naval supremacy, we may infer from the circumstance of their coins bearing on the reverse the image of a vessel’s prow. Of its antiquities nothing now remains except the ruins of a temple, probably to Neptune, which was discovered in 1823, situated on a bank, overlooking the sea, about two miles south of the town.

The Coreyreans submitted to Alexander, and remained subject to the kings of Macedon till they were delivered by the Romans in the time of Perses, from which period they enjoyed their liberty till the reign of Vespasian, when they underwent the common fate of the other Greek islands. In 1072 it was conquered by Robert Guiscard, one of the Norman chiefs then in Italy, who afterwards usurped the throne of Naples, to which kingdom Corfù remained long subject; but during the dissensions which agitated that country it threw off its allegiance, and placed itself under the protection of the Venetian Republic, in the year 1322. Venice was, however, obliged to pay the sum of 30,000 ducats for the quiet possession, in which they remained undisturbed till the year 1537, when 25,000 Turks landed under Barbarossa, but failed in their attempts to take the place. The island was governed by a Proveditore, and treated more like a conquered country than a colony. In 1716, the Turks made another unsuccessful attempt on Corfù. On the fall of the Venetian republic in 1797, it was seized by the French, and was ceded to them, by the treaty of Campo Formio, in the same year. Two years afterwards it was reduced by the combined fleets of Turkey and Russia, and constituted an independent republic under their mutual protection. In 1807 it again fell into the power of France, who retained it till 1814, when it surrendered to the British, and was placed under their protection by the treaty of Vienna in 1815, with the other islands forming this republic. The senate hold their sittings always at Corfù, under the authority of the British representative, termed the Lord High Commissioner, who chiefly resides in this island. Ali Pasha was exceedingly anxious to obtain possession of Corfù, not only for commercial purposes, but as a military barrier to his continental dominions.

As long as Corfù was in the hands of the Venetians its commerce was greatly shackled, both on account of the fear of Ottoman aggrandizement and their own monopolizing system, neither has it yet been able to recover its proper level. The chief exports are salt, olives, and oil; but the land produces excellent fruits, especially oranges, citrons, and grapes, with a great variety of vegetables; bees' wax and honey are also abundant. Grain and cattle are the principal imports, nearly to the amount of half the consumption, which are brought from the main land, and extensive fisheries were carried on in the channel, but these, with the salt-works, have latterly fallen greatly into decay. The population of the island is estimated at 50,000, about 15,000 of whom inhabit the city.

MINERAL KINGDOM.—SECTION XXIV.

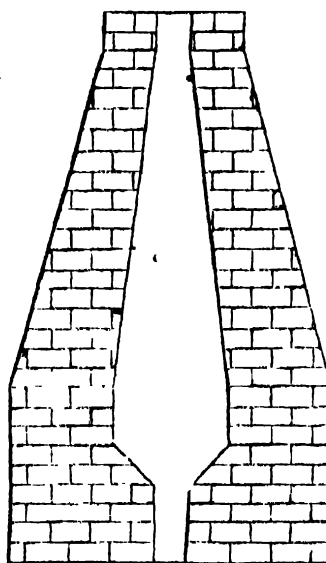
IRON.—No. III.

Method of obtaining the Metal from Clay-Ironstone.—This ore has, as we have said, nothing metallic in its appearance; and no one unacquainted with chemistry would suspect that a bar of iron could be extracted from it, any more than they would conceive that a handful of the red earthy matter which we call rust could be forged into a metal. That rust is metallic iron combined with oxygen gas and carbonic acid gas, which it has absorbed from the atmosphere; and, in like manner, the metal is concealed in the ironstone in a state of combination with oxygen gas and carbonic acid gas. To separate it from these and the other foreign ingredients which enter into the composition of the ore constitutes the operation called *smelting* (a term derived from a German word signifying "to melt"); which consists in bringing the clay-ironstone in contact, under a very powerful heat, with other substances, which, having a stronger attraction for oxygen

and carbonic acid than iron has, destroy the combination, and set the iron free.

The ore, when taken from the mine, is broken into small pieces about the size of an egg, and is then subjected to the process of *roasting*, which is performed by making a long oblong pile of the broken ore, with intervening layers of small coal, forming a heap about thirty feet long, fifteen feet broad, and five feet high, —sloping at the top like the ridge of a house. There is a thick layer of coal at the bottom, which is kindled when the pile is completed; the whole is gradually ignited, and then left to burn for five or six days, and, when cool, the ore is ready for the smelting-furnace. The roasted ore has changed its colour from grey to red, brown, or blackish-brown; has parted with its carbonic acid gas, as well as the sulphur, and other inflammable substances it may have contained, and has lost from twenty to thirty per cent. of its weight.

The furnace is usually a square pyramidal tower of strong masonry, or brick-work, from forty to fifty feet high, similar to the annexed figure:



When first kindled, the fire is made at the bottom of the interior cavity, which is gradually filled with a mixture of ore, coke, and limestone, in the proportions of four of coke, rather more than three of ore, and one of limestone. The heat is urged by compressed air being forced through tubes in the sides into the cavity, by means of powerful bellows, worked by a steam-engine. The mixture is in a highly heated state in the higher part of the furnace, and gradually sinks to that part where the heat, urged by the blast, is most intense, and then it becomes in a state of semi-fusion. Here the more complete decomposition takes place; and the mass being now fluid, the metal, by its greater specific gravity, sinks to the bottom, where it is allowed to run out, from time to time, by opening an aperture left for the purpose. This is *cast-iron*, and the ore yields on an average about thirty per cent. of it. It is conducted into moulds, made with dry sand, on the ground, near the orifice, for the various things made of cast-iron,—from vast beams, wheels, and cylinders of steam-engines, to the smallest articles of domestic use; or it is conducted into moulds for the bars of *pig-iron*,—the form in which cast-iron is sold as a raw material. The term "pig-iron," like many others in the arts, was given by the workmen, and, as may be supposed, it has not a very profound or refined etymology. The metal is run off into a main channel which they call the *sow*; and the bars at right angles to it they liken to pigs sucking the teats of the sow. As the ore sinks down, a fresh supply is poured in at the top of the furnace, which is kept

constantly going, and is never allowed to cool unless for the purpose of repair, or when it is *blown out*, as it is termed, by a stoppage of the works.

It will be observed that the coal is not used as it comes from the pit, but is first brought to the state of coke, or mineral charcoal, which is done by a process very similar to that employed for making charcoal from wood;—the coal being brought to a red heat, in heaps so covered as to prevent free exposure to the air, and thus the bitumen is driven off, leaving a cinder behind like that which remains in the retorts used at the gas-works. The coke serves not only as a fuel for producing the heat, but performs other important functions, for it attracts the oxygen from the ore, and enters into combination with the iron, in the state of pure carbon.

The purpose of adding the limestone is to facilitate the melting of the ore, the lime acting the part of a *flux*, as it is termed, from *fluxus*, a Latin word, signifying a flowing or streaming. There are certain mineral substances which, singly, will resist the action of the most violent heat, but, when mixed together, become fusible at comparatively low temperatures. Thus silica, or the earth of flints, is infusible in a very intense heat, but on the addition of a portion of the mineral alkali soda, it melts readily at a low heat, and forms glass. The limestone acts upon the earths of flint and clay, which enter into the composition of the ore, in the same way as the soda acts in making glass from sand, and thus a fluid is obtained; and as the particles in the liquid mixture have free motion, the heavier ones, that is, the iron, sink to the bottom, and the lighter earthy matter rises to the top, and floats on the surface of the melted iron, forming what is called “slag.” Any one passing by an iron-works must have noticed the heaps of glassy-looking matter, of various colours, thrown aside as rubbish, and which is often used for mending the roads in the neighbourhood;—this is the slag.

Simple as the above process of smelting may seem to be, great skill is required in conducting it, in order to obtain the greatest amount of metal and the best quality of iron which the particular ore is capable of affording. Clay-ironstone, as it was shown in the last section, is very various in quality, both as regards the quantity of iron it contains and the foreign ingredients with which that is mixed, and the process to which it is to be subjected in the smelting-furnace must be varied accordingly. What that is to be is determined by a series of trials, at first on the small scale, which is called an *assaying* of the ore, from the French verb *essayer*, “to make trial of.” If the quantity of earthy matter exceeds fifteen per cent. the ore cannot be advantageously smelted by itself, and it is mixed with ore of a richer quality. Such a mixture is often advantageous on other accounts, for an ore that is difficult to melt by itself is fused with comparative ease when mixed with an ore of a different quality. The nature of the limestone is also a material consideration; for the effect of limestone as a flux depends not only on its own composition, which within certain limits is variable, but also on that of the ore with which it is to be mixed. Nothing but actual trial can determine what proportion of any particular limestone is best adapted to act as a flux upon any particular clay-ironstone.

Two hundred years ago all the iron ore of this country was smelted with wood-charcoal, but the consumption of wood was so enormous that the manufacture upon a large scale must have ceased had not a method been discovered of using coal instead by converting it into coke. As hard wood makes the best charcoal, so is a pit-coal which yields a compact, hard, heavy coke the best for the smelting-furnace, because a coke of that kind stands the blast best. It is very important also to select a coal as free as possible from sulphur in any shape.

We have mentioned that the heat of the furnace is urged by a blast of condensed air thrown in by means of a steam-engine. An improvement has lately been introduced at the Clyde Iron Works, which promises to be of immense advantage by materially reducing the cost of the smelting. This consists in sending in a blast of *hot*, instead of cold, air. When a blast of cold air is thrown in, a great part of the heat of the furnace is absorbed by the cold air, and therefore a large amount of the fuel is wasted. Now it has been found by experiment that the coal necessary to heat the air before it is thrown into the furnace is very considerably less than that which is required to afford the coke necessary to heat it after it is thrown in. Some successful experiments have also been made for smelting with the coal, and thus saving the waste of converting it into coke.

Cast-iron, or pig-iron, or crude-iron, for it is known by all these names, is not a pure substance, but contains usually about one forty-third part of its weight of carbon, which it obtains from the coke, or charcoal, in the process of smelting. The presence of carbon in its composition may be easily shown by dropping a little diluted muriatic acid on polished cast-iron, when the acid dissolves a portion of the iron, and a film of black carbon is left behind, because it is not soluble in the acid. The quantity of carbon depends a good deal upon the quality of the fuel; and if cast-iron be exposed in a melted state for a length of time to charcoal, and free access of oxygen be prevented, the iron will absorb so much carbon as to be converted into plumbago, or that substance commonly called *black-lead*, of which pencils are made, but which has not a particle of lead in its composition. Cast-iron is neither ductile nor malleable, but is, on the contrary, very brittle; and it melts with such facility at a red heat that it cannot be welded, whereas pure iron is one of the most infusible of the metals. It can be fused to such a degree of liquidity that it may be poured into very minute cavities, as we see by those beautiful ornaments, of the most delicate forms, manufactured at Berlin, and at Sain, near Neuwied, on the Rhine.

In our next section, we shall give some account of the mode of converting cast-iron into malleable iron, and of the other ores of this metal.

OPIUM.

OPIUM is a powerful intoxicating and narcotic drug formed of the concrete juice of the poppy. This plant is well known in England, where, as well as in the southern countries of Europe, it is found growing wild, although it appears to have come originally from Asia. Opium is chiefly prepared from the poppy in India, Turkey, and Persia, in which countries it is carefully cultivated for that exclusive purpose. The white poppy is also extensively raised in France and other countries of Europe for the sake of its capsules, and of the useful and bland oil extracted from its seeds. The poppy has also been cultivated, and opium made, in England; but there seems little probability that it will ever be raised in this country to any considerable extent.

The process by which the drug is obtained from the plant is nearly the same in all the countries where it is cultivated. The plant is reared most extensively in India, and opium forms the staple commodity of many provinces, in which the following is the mode of treatment commonly used. It is an object of careful attention to keep the plants at a due distance from each other. If the seed happens to have been too thickly sown, some of the young plants are pulled up and used as potherbs; but when they have attained a foot and half in height they are considered unfit for that use, from their intoxicating nature. The plant flowers in

February, and the opium is extracted in March or April, according to the period of sowing. The white poppy affords a more abundant supply of opium than the red; but there is no apparent difference in the quality of the product. When the flowers have fallen, and the capsules assume a whitish colour, they are wounded with a three-toothed instrument, which is drawn from the top to the bottom of the capsule so as to penetrate its skin. This is done in the evening, and the opium is gathered the next morning. The wounds in each capsule are repeated for three successive days, and in general fifteen days suffice thus to wound all the capsules in a field, and to gather all the opium. From the incisions a milky juice exudes which thickens on exposure to the air, and is carefully scraped off with a shell or a small iron instrument previously dipped in oil. It is afterwards worked in an iron pot in the heat of the sun, until it is of a consistence to be formed into thick cakes of about four pounds weight. These are covered with the leaves of poppy, tobacco, or some other vegetable, to prevent their sticking together; and in this condition they are dried and packed away, for exportation, in chests lined with hides, each containing forty cakes and weighing about 150 lbs. The drug thus prepared brings in India about 15s. a pound.

The raising of opium is a business of much delicacy; the poppy being a very tender plant, liable to injury from insects, wind, hail, or considerable rain. The produce seldom agrees with what might be stated as the average amount, but generally runs in extremes. While one cultivator is disappointed, another is an immense gainer; and while one season will not pay the expenses of culture, another enriches all the cultivators. This circumstance renders the pursuit in the highest degree alluring, from the excitement, uncertainty, and hope connected with it.

The opium of India is, in the peculiar properties of the drug, inferior to that of Turkey. The latter is usually exhibited in flat pieces covered with leaves. It has a peculiar, strong, heavy, narcotic odour, with a bitter taste, accompanied by a sensation of acrid heat, or of biting, on the tongue and lips, if it be well chewed. Its colour when good is reddish-brown or fawn-coloured; and its texture is compact and uniform. When soft, it is tenacious, but it becomes hard from long exposure to the air, and breaks with an uniform shining fracture. East India opium is equally nauseous and more bitter to the taste than Turkey opium; but it is less acrimonious. It is also darker in its colour, and less plastic, but quite as tenacious. Good Turkey opium yields nearly three times the quantity of *morphia*, or of the peculiar principle of the drug, than that of India. The price of Turkey opium, in bond, was, in 1831, 17s. or 18s. a pound; and the duty amounted to 4s.

Opium is, in some form or other, very extensively used in Turkey, Persia, and India; but its greatest consumption is in China and the surrounding countries, where the habit of smoking it has become universal. The Chinese seethe or boil the crude drug, and by this process the resinous or gunmy impurities are separated and the remaining extract only is reserved for use. A small ball of it, placed in a large wooden pipe with some combustible matter, is lighted, and the amateur proceeds to inhale four or five whiffs, when he lies down and resigns himself to his dreams, which are said to have no inconsiderable resemblance to the sensation produced by inhaling the oxide of azote. Those who do not carry this indulgence to excess, do not, it is said, experience any ill effects from it—but this is true of most indulgences properly moderated. The people of Borneo and Sumatra subject the drug to nearly the same preparation as the Chinese, and make use of it in much the same manner. The convivial excesses of the

latter probably, in an equal degree, resemble those of the Sumatrans. 'At convivial parties among them, a dish of the prepared opium is brought in with a lamp; and then the host, taking a large pipe, puts into it one of the small balls we have mentioned. In smoking, the smoke which has been inhaled is blown out through the nostrils, and, if the smoker be an adept, through the passages of the ears and eyes. He seldom takes more than three or four whiffs before he passes it round to the rest of the company (one pipe serving them all), who act in the same manner, and thus continue smoking until the whole party is completely intoxicated.

The people of Java are addicted in a very remarkable degree to excess in the use of opium. Such of the natives or slaves as have been rendered desperate by the pressure of disappointment or misfortune give themselves up entirely to the baneful indulgence, until their minds are raised to a state of frightful excitement, or rather frenzy. In this state they rush forth with dreadful purposes against all by whom they think they have been wronged or offended. They run along shouting "Amok! amok!" or "Kill! kill!" and in their blind fury stab at every person they meet until self-preservation obliges the people to kill them as we kill a mad dog. This is what is termed "running amuck." This is most commonly the result of the strong propensity of the people to gambling, by which they are often deprived of all they possess in the world, and, "worst loss of all!" even lose their own self-respect. The immediate destruction of the muck-runners is authorised by the law in Java.

In some parts of India, opium is presented at visits and entertainments in the same familiar manner as the snuff-box in Europe. There is in that country a class of persons who carry letters and run with messages through the provinces. With no other provision than a piece of opium, a bag of rice, and a pot to draw water from the wells, these men perform journeys that would scarcely be credited in this country. In the same manner the trackless deserts of the different countries between the Indus and Mediterranean are traversed by foot messengers by the aid of this drug, with a few dates perhaps, and a piece of coarse bread. The old traveller, Sir Thomas Herbert, very well describes this use of opium. "Opium (the juice of poppie) is of great use there also (in Persia): good, if taken moderately; bad, nay mortal, if beyond measure: but by practice they make that familiar which would kill us; so that their medicine is our poison. They chew it much,—for it helps catarrhs, cowardize, and the epilepsie; and, which is admirable, some extraordinary foot-posts they have who, by continual chawing this, with some other confection, are enabled to run day and night without intermission, seeming to be in a constant dream or giddiness, seeing but not knowing whom they meet, though well acquainted, and miss not their intended places, by a strange efficacy expelling the tedious thoughts of travel, and rarely* for some dayes deceiving the body of its reasonable rest and lodging."

The very extensive use of this drug in Turkey and Persia is no doubt in a great degree owing to the prohibition of intoxicating liquors by the Mohammedan law. It was a substitute for them. Accordingly the use of the drug has much declined in Turkey of late years, since those who would otherwise have been opium-eaters have learned to indulge in wine and arrack. Nevertheless, the occasional use of opium is far from having ceased, nor has the race of *Theriakis*, or habitual opium-eaters, become extinct, although a traveller may have been a considerable time in Constantinople without having seen one. They frequent the coffee-houses near Yeni-Kapoussi, and are there

* Rarely—wonderfully.

easily distinguished from the more temperate visitors of the place. Mr. Madden, in his 'Travels in Turkey,' &c., well describes the appearance which these pitiable objects present. "Their gestures were frightful. Those who were completely under the influence of opium talked incoherently; their features were flushed, their eyes had an unnatural brilliancy, and the general expression of their countenance was horridly wild. The effect is usually produced in two hours, and lasts four or five. The dose varies from three grains to a drachm. The debility, both moral and physical, attendant on its excitement is terrible: the appetite is soon destroyed, and every fibre in the body trembles; the nerves of the neck become affected, and the muscles get rigid,—I have seen several in this place who had wry necks and contracted fingers; but still they could not abandon the custom. They are miserable until the hour arrives for taking their daily dose." We cannot wonder at this. Habits of inebriety, even from ordinary stimulants, are not often overcome; and the visions of beauty and splendour which opium superadds, renders it all but impossible to relinquish the habitual indulgence which has once been created. They know that the indulgence shortens life, and that the opium-eater dies of old age in his youth. They know that one who begins at twenty rarely outlives thirty, and scarcely ever thirty-six. But this knowledge has no effect, and all remonstrance is unavailing. When a friend exhortates, the opium-eater answers with impatience at his ignorance, and with the cold and haughty pity of one who has the secret of happiness, of which the other knows nothing. To remonstrance we have known such answers given as this:—"Opium conveys me to Paradise: and when I come back to the world again I am miserable because I have been *there*; therefore I take opium that I may return thither."

In Persia the use of opium is now probably more general than in Turkey, although in that country it is rarely that any one gives himself up so entirely to the habit as the Turkish theriak. There is nothing in Persia which so strongly reminds an Englishman of gin-drinking in his own country, as to observe in the bazaars groups of squalid, ragged, lean, and trembling figures (women as well as men), assembled in the morning around the opium stalls, and waiting with impatience until they receive their quantum of the pleasant poison. It is also remarked, in many of the large towns of that country, that the beggars in the streets beseech the passenger, by all that is holy and merciful, by all that a Moslem venerates, and by his hopes of salvation, to give a para to buy—not bread—but opium—opium to save him from death. Women in that country even give opium to their children to quiet them when they are crying.

In England, the Turkey opium is chiefly used, and is little employed except for medical purposes. The author of 'The English Opium-Eater,' who describes with great intensity the delights and miseries of habitual opium-taking, considered that it was coming into use in this country as an exhilarant and inebriant as well among the working class as among sedentary men. But this statement does not appear to be confirmed by the official accounts of the quantity consumed. On the average of the last five years, about 28,000 lbs. have yearly been retained for home consumption in this country; and this quantity does not indicate an increase in the consumption much greater than the medical wants of an increased population might be supposed to demand. The duty was lowered to its present amount in 1828; previously it was 9s. in the pound.

Bacon.—Bacon thought himself born for the use of mankind; and, in one of his letters to Father Fulgentio, he styles himself "the servant of posterity."

SUBTERRANEAN PASSAGES AT ELTHAM PALACE.

THE following account of these recently discovered passages is taken from a small pamphlet lately published at Greenwich.

The kings of England had a palace at Eltham at a very early period: and viewing the extensive excavations, with the decoys, &c., and connecting them with the history of the reign of Henry III., when this mode of security and defence was employed, it is probable the palace was first built by this king. Tradition has always kept up a belief of the existence of an underground passage to Blackheath, Greenwich, or the river; and it was affirmed in the neighbourhood that, at Middle Park, connected with these passages, there were one or more apartments underground for sixty horses.

Under the ground-floor of one of the apartments of the palace, a trap-door opens into a room underground, ten feet by five feet; and, proceeding from it, a narrow passage, of about ten feet in length, conducts the passenger to the series of passages, with decoys, stairs, and shafts, some of which are vertical, and others on an inclined plane, which were once used for admitting air, and for hurling down missiles and pitch-balls upon enemies, according to the mode of defence in those ancient times: and it is worthy of notice that, at points where weapons from above could assail the enemy with the greatest effect, these shafts verge and concentrate. About 500 feet of passage have been entered, and passed through, in a direction west, towards Middle Park, and under the moat for 200 feet. The arch is broken into in the field leading from Eltham to Mottingham, but still the brick-work of the arch can be traced farther, proceeding in the same direction. The remains of two iron gates, completely carbonized, were found in that part of the passage under the moat; and large stalactites, formed of super-carbonate of lime, hung down from the roof of the arch, which sufficiently indicate the lapse of time since these passages were entered.

The newspapers state that the discovery of these passages has revived many half-forgotten stories of similar labyrinths elsewhere. Such a passage is said to exist beneath St. John's Gate, Clerkenwell, extending by one branch to the vaults of St. James's Church, and by another to Canonbury House, Islington, formerly a favourite residence of Queen Elizabeth; and another to Aldgate. There may have been such passages, but that they ever extended so far, or that they now exist, is not very likely.

Dutch Clerks.—Even an English merchant would be astonished to see the wonderful arithmetical attainments of stripling clerks in any of the Dutch counting-houses, and the quantity of complicated business which they discharge in the course of the day,—the order of their books, the rapidity and certainty of their calculation, according to the commercial habits and exchange of different countries, and the variety of languages which they speak; to which may be added the great regularity and length of their attendance, and the decency and propriety of their deportment.—*Curr's Tour through Holland.*

DELAY.

Delay in close awaits
Caught hold on me, and thought my steps to stay,
Feigning full many a fond excuse to prate,
And time to steal, the treasure of man's day;
Whose smallest minute lost no riches render may.

Spenser.

INDIAN RIVERS.

'THE Hindoos' is the title of a new volume of the 'Library of Entertaining Knowledge.' It furnishes, in a popular form, a careful and interesting digest of a vast quantity of dispersed information concerning a country under British dominion, and concerning a people who are our fellow-subjects, and whose history, character, and condition ought therefore not to be indifferent to us. The measures which have recently been taken to ameliorate the condition of the Hindoos, and the attention which has been directed towards India upon the recent alteration of the Company's Charter, seem to render such a publication as the present peculiarly desirable and opportune. From the many pleasing embellishments which the volume contains, we have selected

the annexed wood-cut; and the following explanatory matter is abridged from an account of the rivers of India, in the first chapter.

The rivers of India have always been more celebrated than its mountains. Every person throughout the civilized world is familiar with the names of the Indus and the Ganges, those holy streams which seem to the superstitious Hindoo, as the Nile appeared to the Egyptian, to be of divine origin. They are certainly among the most precious gifts which Nature has bestowed upon Hindoostan. By their means, and that of numerous tributary or inferior rivers, an amazing degree of fertility is maintained in the country, and which from time immemorial has not only supplied a vast population with its produce, but has been enabled to satisfy the wants of the rest of the world with its superfluities. To us in England it is difficult to form an idea of those "ocean streams," which, in a course in some instances of nearly two thousand miles, collect the waters of a thousand rivers, and at length flow in channels of several leagues in breadth to the sea. In the level lands of Bengal, rivers cannot, of course, possess very lofty banks; but palaces, temples, and palm-trees of gigantic size shoot up from the water's edge, and are visible to a great distance; yet in sailing up and down these majestic streams the eye is frequently unable to descry the opposite banks. Except in the rainy season the surface of the waters, rarely ruffled with winds, is as smooth as a mirror, and beautifully reflects the glorious hues which dawn or sunset spreads over the tropical skies, with the lazy, lingering sail floating like a dream over its surface. Towards the mouth, however, this tranquillity is twice a day disturbed by the tide, which, particularly in the Indus, rushes with indescribable violence against the stream with what is commonly called the *mascaret* or *bore*, and endangers the banks which encounter it. It was this phenomenon that astonished the soldiers of Alexander, who, accustomed to the tideless waves of the Mediterranean, knew not how to account for this war of waters, which travellers have described with wonder, and poets, ever in search of new imagery, have invested with the pomp of imagination; but words fail to convey an adequate idea of the awe and terror it inspires when, bursting in thunder, it shakes the shores like an earthquake. Still less can the calculation of the number of the cubic feet of water, which one of these mighty

streams hurls headlong every moment against the opposing waves of the ocean, give any conception of the magnificent struggle, to witness which alone is worth a pilgrimage to the Indus or the Orrellana.

Of all the rivers of India, the Ganges is the most sacred. It is, in the estimation of the natives, a god; and the most secure way to Heaven is through its waters. Hence, whenever this is possible, the Hindoo comes to its banks to die, and piously drowns in it his parents and relations to ensure their eternal happiness. With the converse of the feeling of the Ghiber, who would consider the eternal fire—the object of his worship—polluted by the touch of a corpse, the Hindoo casts the dead naked into the sacred stream; so that those who sail upon the Ganges have often to make their way through shoals of livid corpses, floating down in various stages of corruption and decay towards the sea. This stream rises among the roots of the Himalaya mountains, on the Indian side of the range. It very soon becomes of considerable depth, and navigable for the light barks of the country, but before the confluence with the Jumna it is fordable in many places. The depth of the Ganges is not materially influenced by the melting of the snows, though, like all other tropical rivers, it overflows the surrounding plains, in some places, for more than a hundred miles in extent; at which time nothing is visible but the lofty palm-trees, the villages, which are built on elevated sites, and a few mounds, the sites of ruined hamlets. Travelling is at this period performed in boats, in which the Hindoo skims over his rice-fields and gardens, which are then imbibing the moisture necessary to their fertility. The prospect is singular but monotonous, as every field is similar to the next, and the appearance of the country upon the subsidence of the waters is anything but picturesque. At the distance of five hundred miles from the sea, the Ganges is thirty feet deep at low water, and never becomes shallow until at its mouth, the bars and banks of sand thrown up by the contending waters of the rivers and the sea, choke its channel and render it unnavigable to large vessels. At the distance of two hundred miles from the sea, the river separates into two branches; the eastern, which flows towards the south-east, retaining the original appellation, and the western branch assuming the name of the Hoogly. Upon the latter, which is navigable by the largest ships, Calcutta, the British capital of India, is situated.



The Bore: coming in of the Tide on the Ganges.

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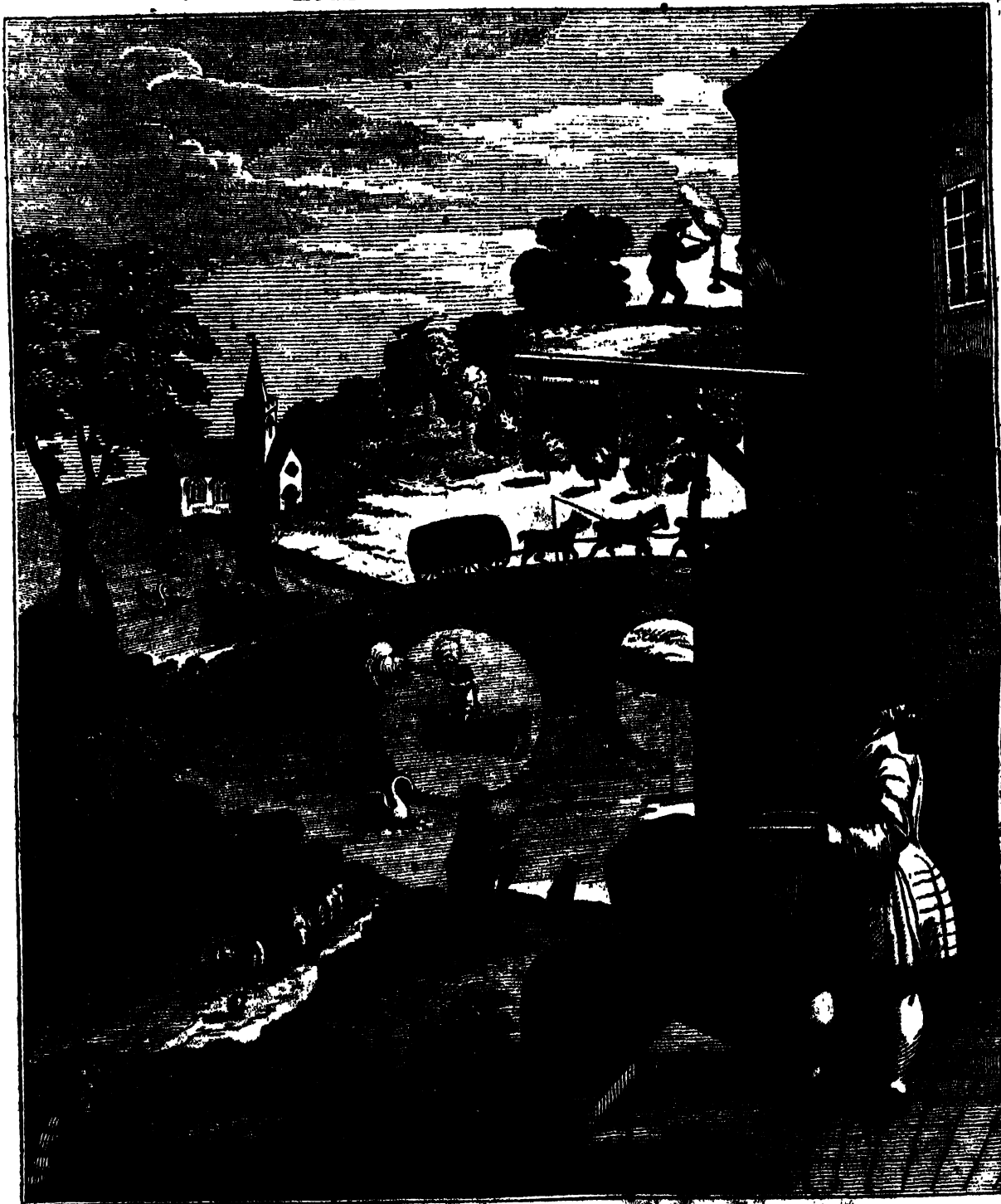
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163.]

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[OCTOBER 18, 1834.]

HOGARTH AND HIS WORKS.—No. VII.



[Hogarth's Perspective.]

THE whimsical comedy of errors before us is a lesson given by Hogarth to his brother painters, though very much more caricatured than those which he bestowed on the rest of the world. Many who have general ideas on the subject of perspective will learn less from description of what it is, than from what they are here shown of what it is not.

VOL. III.

There are but two principles in perspective, though the manner of carrying them into effect leads to a large number of subordinate rules. If a plate of glass were interposed between the spectator and the view, and the former kept his eye steadily in one position, he might, with a long brush, blacken the glass in such a way as just to hide one particular object, in all its parts, with-

8 F

out intercepting the light from any surrounding object. He would thus have what is called a correct outline, filled up with black. His second process must be to cover the black with shades of other colour, of tint and brilliancy altogether the same as those which did come from the object before the black was put on. If he could do this perfectly well, another person taking his place could not know that one of the objects he sees is painted on the glass, but would throw it back among the rest to the apparent place of the real object.

Everything that can be drawn on the glass is the proper outline of some conceivable shape, or, we should rather say, of an infinite number of conceivable shapes. For if we take any one figure which an outline will just hide, that same outline will just hide a larger figure of the same sort placed at a greater distance. Thus the outline of the man on the hill is a rational outline of a man, but too large for his position,—seeing that he is as tall as the tree he stands by. The burlesque of the figure consists in this, that as we must conceive him standing somewhere, we place him on that point of the hill which his feet hide; at the same time the outline is so well marked, and the shading so strong, that he cannot be on the hill,—but must be even nearer to us than the woman. Observe, that an artist who knew his business would find no difficulty in drawing a giant on a hill, as tall as a tree, with a pipe gigantic as himself, just in the line of a moderate-sized candle placed much nearer to the spectator, so that the candle should in the picture touch the end of the pipe,—that it should in reality fall in the line drawn from the bowl of the pipe to the eye. And this he could do, by preserving the proper degree of colouring or shading in such a manner that no one would suppose he meant the two objects to be near one another. In another respect, the object (we will not say he is a man) is of too dubious a character to hold a candle to; for worse than wizards in general, who, as we all know, throw no shadow, he throws his the wrong way: that is, if the row of trees below him are to be depended upon.

The boat is mounting on the bridge, followed by the water, for the keel is not visible. But this water is a fluid which will not find its level, as is evident on its horizon. From the appearance of it beyond the church-door, there is too much reason to fear that it has erected itself perpendicularly, and forced round the body of the church, aided by a distant tree which lays hold on the roof.

The waggon has taken flight at the approach of the boat, for it cannot be at the sportsman on the other side who is firing at the bird he cannot see, and is coming over the parapet of the bridge, on which it has got the further wheel before the nearer one is over the horses, however, will not follow it, according to appearance, which shows their discretion, for the bridge is of a most tremendous height, clear from the fishing-rod of the nearest fisherman, which with all its elevation and near as it is, only just rises above them. The man who holds the rod, with the rod and line itself, are a piece out of a different picture on a very different scale, and the effect is heightened by this circumstance. For on that account the length of the rod does not appear very disproportionate, but only serves to increase the absurdity of surrounding combinations. If it had been made shorter and brought down, its immense length would have been more clearly seen, but then the frontage of the house would have been less incongruous.

The sign of the inn is another instance in which the effect of surrounding faults is increased by making a part more nearly true than the rest. The sloping beam looks more close under the arm which supports the sign than, from the position of the fastenings, it is possible it should be. To see the upper part of the arm in the

manner shown, the spectator must be nearly on the level of the woman in the second story; yet it is plain that he looks up at the horses.

It has always appeared to us that Hogarth has, in this picture, rather overshot the mark which we conceive he proposed to himself. He meant to caricature the faults committed by many distinguished artists, who have frequently sinned deeply against perspective, particularly in the subordinate parts, or those which are of less importance to their immediate subjects: witness the backgrounds of portrait and historical painters. Perhaps, also, he meant to ridicule the manner in which perspective is sometimes avowedly sacrificed to effect. But this was certainly not successfully done by introducing faults which the worst dauber of canvass who ever took a pallet in hand never commits in any perceptible degree. Such, for example, as hiding a sign-post by distant trees, or diminishing objects as they approach nearer. The faults of painters are generally in quantity, rarely in quality. Many will paint sheep which either diminish too much, or not enough, as they recede: but who ever turned that which ought to be diminution into increase? And the same may be said of lights and shadows, which are seldom, if ever, transposed through negligence, though the proper degree of one or the other is diminished or exaggerated. Perhaps the subject was not a very favourable one, or could not have its intention made sufficiently manifest to people in general without some mixture of gross force with the comedy. For the large world is not yet so well qualified to judge of pictures, upon this point at least, as artists are to draw them; any thing to the contrary about increasing love for the arts notwithstanding; and false perspective no more exaggerated than real life in the two apprentices would not be within the limits of perceptible caricature.

MINERAL KINGDOM.—SECTION XXV.

IRON.—No. IV.

To convert cast-iron into malleable or bar-iron, it is again melted in a furnace, and run out into moulds, when the impurities, which usually consist of earthy matter and oxidized iron, being lighter than the pure iron, rise to the surface, and are taken off. When it becomes solid, the process is repeated two or three times, until the iron, when stirred in the furnace, instead of being liquid, clots together into soft, pasty lumps. In this state, moderate-sized masses are taken out and are beaten, under an enormous hammer, moved by steam-power, called the "forge-hammer," into cakes about an inch thick. These cakes are subjected to a strong heat in another kind of furnace, and, when softened, one of them is taken out and beaten into a short bar, which is then welded to another of the cakes, which is beaten out in the same way, and thus by addition the bar is made of the desired length. The whole bar is then put again into the furnace, softened, and again beaten under the forge-hammer; and, when that process is finished, it is malleable bar or malleable iron. It has now lost all the carbon, oxygen, and earthy ingredients which existed in the cast-iron, and the more complete the separation from these the better is the iron. In place of being brittle and easily fusible, it has become possessed of great tenacity, ductility, and malleability; and one of the chief tests of its purity is its power of resisting a very violent heat without exhibiting any signs of fusion.

The quality of the iron smelted with coke from clay-ironstone, although greatly improved of late years, is, for many purposes, much inferior to the best qualities from Sweden, Norway, and Russia. The difference depends partly, perhaps, on the different nature of the best ores in these countries, but chiefly on account of

wood-charcoal being used in all the processes, from the first smelting of the ore to its conversion into bar-iron. In Siberia the charcoal is made from pine, and therefore is not so good as that in Sweden, where a great deal of hard wood is used, and this is very much in favour of the quality of the manufactured iron. It is said, however, that, although iron made by wood-charcoal is better for malleable iron and steel, it is not so good for casting as that made with coke.

How soon the art of manufacturing iron was practised in this country is unknown; but heaps of slags and cinders in many places now covered with deep soil, attest that the smelting of the ore was known to the early inhabitants. Previously to the early part of the seventeenth century it was entirely smelted with wood. In that part of the southern counties of England called the Weald of Kent, Surrey, and Sussex, the strata contain iron ores of different qualities in considerable abundance; and, where wood was plentiful, there were many furnaces in that district. These were of course abandoned when the cheaper method of smelting with pit-coal was discovered. The quantity of wood that was consumed in the iron-furnaces in various parts of England must have been enormous. Mr. Mushet calculates that the quantity of iron made at the time when the method of smelting by pit-coal was first discovered must have required 14,000 acres of wood to be felled annually for the sole purpose of supplying the furnaces. All the iron made in France at the present time is smelted with wood, and the consumption of the latter has been so vast,—so much beyond the growth of timber—as most materially to raise the price of fuel throughout the country. Notwithstanding this ruinous consequence, and the very high price which the manufacturer must pay for his iron, the government strangely persist in the injudicious policy of laying on a heavy duty on the importation of iron from other countries.

The discovery of smelting iron with pit-coal was made by one Dudley, about the year 1619; but such is the force of habit and prejudice, that many years elapsed before it was generally adopted. The manufacture of iron did not rise into very great importance until after the discoveries of Watt in the improvement of the steam-engine, when that power was applied to produce the blast in the furnace; for then furnaces could be erected wherever the ore and the coals were found, although there were no streams of water to impel the machinery. From that time the manufacture has been steadily progressive, and more iron is now made in Great Britain than in any other country of the world. Mr. Mushet states, in his 'Memoir,' in 1798, that the total amount of pig-iron smelted in Great Britain at that time did not exceed 100,000 tons annually; whereas now the produce of all the furnaces falls very little short of 700,000 tons. Dr. Thomson states, (in 1812,) that the total amount of iron manufactured in Sweden is under 65,000 tons annually.

The great seats of the iron-manufacture of Great Britain are,—the Staffordshire, a few miles north of Birmingham, around Walsall, Bilston, and Dudley;—the South Wales, around Merthyr Tydvil, in Glamorganshire, and in the Forest of Dean, on the borders of Wales;—and the Shropshire, in and around Colebrook Dale. But, besides these, there are many considerable works in different parts of Yorkshire and Lancashire. One of the oldest and most extensive establishments is that of the Carron Works, near Falkirk, in Stirlingshire; and there are several in the neighbourhood of Glasgow. Clay-ironstone is found associated with the coal-measures of the Northumberland and Durham coal-fields, but not in sufficient quantity to make it worth while to erect any great works.

In that part of north Lancashire called Furness, and principally around Ulverstone, an ore of iron is found of

a different nature from the clay-ironstone, being a compound of about 65 per cent. of iron, 30 of oxygen, and a small admixture of earthy ingredients. It is usually of a fibrous structure, and of a red colour, with a semi-metallic lustre, and is called by mineralogists "hematite," from a Greek word signifying "the blood." It is also called "bloodstone," which is the name by which it is known in the arts; it is used for making burnishing tools, and, when ground to fine powder, it is extensively employed as a polishing material by most workers in metal. A considerable part of the ore is still smelted with wood-charcoal, and produces a very valuable quality of metal: a great part of the best plate-iron and iron-wire is made from it.

The next ore of iron which we have to notice as occurring in such abundance as to afford one of the great supplies of this metal, is that called by mineralogists "Magnetical Iron Ore,"—from its being not only attracted by the magnet, but as possessing itself polarity. It is composed of about 70 per cent. of pure iron, and 30 per cent. of oxygen; but it is seldom that the ore is found entirely free from foreign ingredients. The best Swedish iron is made from this ore, and the most celebrated mine of it is at Dannemora, about 80 miles north of Upsala, which has been worked for more than 800 years. Dr. Thomson visited it in 1812, and gives a description of it in his 'Travels in Sweden,' as does Iars, in his 'Voyages Metallurgiques,' in 1767, who says that the mine was then worked like a great stone quarry, open to the day, and of vast extent, and not underground, as mines usually are. The ore, after being roasted, is put into a furnace, with the requisite quantity of charcoal; but the addition of limestone is seldom necessary, because lime exists already in the ore. "The cast-iron obtained by this process is as white as silver, completely crystallized, extremely hard and brittle, and incapable of being applied to any useful purpose in that state. It is not liable to rust, and, indeed, this is a quality which Dannemora iron possesses both in the state of cast and of malleable iron. It is much less liable to rust than any other kind of iron whatever. This cast-iron is reduced to malleable iron by heating it in a bed of charcoal and oxide of iron, and hammering it out into bars while hot*." The cause of the superiority of Dannemora iron has never been satisfactorily explained. Another great mine of magnetical iron-ore is in the Mountain Taberg, in Sweden, situated a little to the south of the great lake Wetter, due west from Gothenburg. The uppermost bed of the mountain, which is 370 feet thick, has been wrought as an iron-mine for nearly 300 years. There were, in 1812, according to Dr. Thomson, 176 iron mines in different parts of Sweden; but many of them must be very insignificant, as the total produce is so small as 65,000 tons annually.

There are a few other ores of iron which are smelted for the purpose of obtaining the metal, the variations chiefly depending on the different proportions of the oxide of iron, and of the earthy ingredients with which it is combined. There are other ores which are applied to different purposes in the arts. One of the most common of these is that which is called "pyrites" by mineralogists, which is a combination of the iron with sulphur. The shining metallic bodies resembling brass, frequently seen in common blue roofing-slate, are iron-pyrites. In some situations, especially when found in the coal-measures, this ore is very liable to decomposition by the action of the air and moisture. In the act of decomposition heat is generated, and makes it advance more rapidly. This decomposition is also effected designedly for the purpose of collecting the produce, which is the salt called "sulphate of iron," or green vitriol. The process of decomposition is this: the

* Thomson.

sulphur combines with the oxygen of the air and of the water, when sulphuric acid is produced (or oil of vitriol, as the old chemists used to call it, and as it is still called in the arts); and the acid thus formed combines with the iron. When the decomposition is effected, the mixture is thrown into water, which dissolves the sulphate of iron; and, by carefully pouring off the clear solution and subsequent evaporations, the green crystallized salt is obtained. Mr. Aikin states that, in the

Vale of Conway, in Caernarvonshire, iron-pyrites is decomposed for the purpose of obtaining the sulphur from it; and that the iron, which is converted by the process into red ochre, is sold for common paint and other purposes. The pencils said to be *red-lead* are made from a soft ore of iron;—that which is called “reddle,” or red chalk, is a compound of oxide of iron and the earth of clay; but neither contain lead, any more than the so-called black-lead does.

BELLS.



[“Tsar Kolokol,” or King of Bells, in Russia.]

The origin of bells is probably to be dated from the time when the sonorous property of metals was first noticed. A tinkling instrument of some sort was in use as early as the days of Moses, as it appears from Exodus xxviii. 33—35, where the priest is commanded to hang bells to his robe, in order by their sound to give notice of his approach to the sanctuary. Bells were also appended to horses as an ornament, (Zech. xiv. 20,) probably similar to those which are still used in many parts of Europe.

Small bells were used by the Greeks and Romans for civil and military purposes, and they were sometimes rung in temples to call the people to their religious duties. St. Paulinus, Bishop of Nola in Campania, at the end of the fourth century, is said to have been the first who used bells in Christian churches to call the people to prayer; for which purpose it had been customary until then to employ wooden mallets. Bells were gradually introduced into all the churches of the west, and also into many Greek churches, though the wooden mallet has been more generally used in the East. This latter practice was continued, during the independence of the Greeks, from choice, and afterwards enforced by the Turks, who abhor bells to such a degree, that the Turkish writer, Sadeddin, seems to consider the silencing the “detestable bells” as one of the great

advantages of the capture of Constantinople. Such bells as the Greeks used were consequently destroyed, with the exception of a few in remote situations—as at Mount Athos, where the sound would not offend Turkish ears.

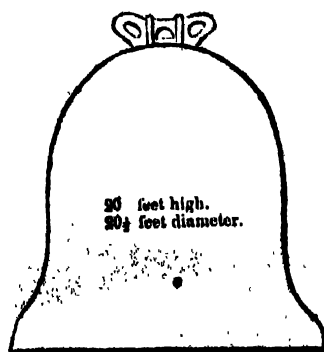
Large bells appear to have come into use in the sixth century. In the year 610, Clothaire II., King of France, when besieging the city of Sens, is said to have been so much alarmed at the hitherto unheard clangor of the bells in St. Stephen's church, that he retreated in affright, and abandoned the siege. They were very generally adopted in England as soon as parish churches were erected, and they gave rise to that remarkable part of ecclesiastical architecture the bell tower, it being thought necessary to elevate them in order that their sound might reach to a greater distance. The fervour of a man's piety being then estimated by the value of his gifts to the church, large bells were often presented by rich individuals. Turketul, abbot of Croylund in the tenth century, gave to the church of that abbey a great bell, which he named Guthlac, in honour of the patron saint of the place; and his successor, Egelric, who died in 974, presented six bells, to which he gave the whimsical names of Pega and Bega, Tatwin and Turketul, Betelem and Bartholomew. These bells were tuned to harmonize with the great

COMPARATIVE DIMENSIONS OF BELLS.
 "One-tenth of an Inch to a Foot.]



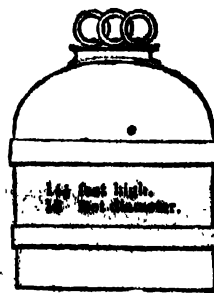
21 feet high.
18 feet diameter.

The Bolshoi.



36 feet high.
30½ feet diameter.

The Tsar-kolokol.



14½ feet high.
12 feet diameter.

Great Bell of Peking.



10½ feet high.
8½ feet diameter.

Great Bell of Erfurt.



5½ feet high.
7½ feet diameter.

Great Tom of Oxford.

Guthlac, and so agreeable was the effect of their combination, that Ingulphus, who had often heard them, says, "*Fiebat mirabilis harmonia, nec erat tunc talis consonantia campanarum in tota Anglia*"—They made a wonderful harmony, and there was not at that time such a well-tuned peal of bells in all England.

This peal of Croyland proves the early origin of the peculiar English taste for bell-ringing, so cheering to the inhabitants of our secluded villages. Even in towns our bell-ringing is preferable to the constant monotonous jangle of a single bell, so common in France and Italy, or to the irregular clanging of a dozen of all sorts and sizes at once, so deafening on festival days in Catholic countries. In chimes moved by clock-work, however, we must admit that our bells are at an immeasurable distance behind those of the Netherlands, which are as superior to the best of our clumsy contrivances as an organ to a hurdy-gurdy.

Bells were of old put to services which the superior intelligence of the present age seems to have totally abolished. What these uses were will appear from the following words of Aubrey, who wrote about a century and a half ago. "At Paris, when it begins to thunder and lighten, they do presently ring out the great bell at the abbey of St. German, which they do believe makes it cease. The like was wont to be done heretofore in Wiltshire; when it thundered and lightened they did ring St. Adelm's bell at Malmesbury Abbey. The curious do say, that the ringing of bells exceedingly disturbs spirits."

One of our most celebrated bells is the Great Tom of Oxford, which was cast, after two failures, on the 8th of April, 1680, from the metal of an old bell on which was the following curious inscription,—"In Thomæ laude resonat him bom sine fraude." From this the old bell was named Tom, though, on the restoration of Catholicism by Queen Mary, it was rebaptized by her name. Dr. Tresham, by whom the ceremony was performed, was so delighted with the sound of this bell under its new name, that he cried out on hearing it, "O bellam et suavem harmoniam, O pulchrum Marian, ut sonat musice, ut tinnit melodia, ut placet auribus mirifice!"—Oh sweet and pleasant harmony, oh beautiful Mary, how musically it sounds, how melodiously it rings, how wonderfully it pleases the ears! It is a curious instance of the fondness for bell-ringing in England, that Dr. Tresham endeavoured to bribe the students at Oxford to come to the mass by the promise of some additional bells which would make the Oxford peal the finest in England. The Great Tom of Oxford is the heaviest we have: it weighs 17,000 lbs., and is 7 feet 1 inch in diameter at the brim, and 5 feet 9 inches high; its thickness at the striking part is 6 inches. The Great Tom of Lincoln was nearly as large as that of Oxford, but being thinner, weighed only 9894 lbs. This bell was cast the 3rd of December, 1610, and has

not been rung for many years; its only use in the present century has been to strike the hours: some years ago it was quite cracked, and it has lately been resolved to cast a new one with additional metal, which shall weigh 12,000 lbs. The old bell was broken up, preparatory for casting, on the 18th day of June last. The great bell of St. Paul's weighs between 11,000 and 12,000 lbs., and measures nine feet in diameter, and not ten as commonly asserted.

In spite of these examples we cannot boast of very large bells. The bell of Erfurt, cast in the fifteenth century, and long celebrated as the largest in Europe, weighed more than 25,000 lbs.; and the people of Rouen estimate their largest at 36,000 lbs. But the country of great bells is, without dispute, Russia. There the great bell may be heard in full vigour, not

• "Swinging slow with sullen roar,"

for the Russian bells are too large to be swung, but incessantly tolling, and booming, and deafening all ears but those of Russians, who almost worship their bells. The largest of these "mountains of metal" is called in Russian the "Tsar kolokol," or king of bells, from the metal of which at least thirty-six bells might be cast, each as large as the great bell of St. Paul's, which has been itself called an "enormous mass of metal." The "king of bells" weighs 400,000 lbs., or nearly 200 tons, is 20 feet high, and 20½ in diameter. Some travellers have stated larger dimensions than these, and some smaller; but the admeasurements we have given were made by the order of the Emperor Alexander, and reduced to English measure. This enormous bell is now lying in a cavity close by the Ivan velikii, or great Ivan, which is a tower belonging to the cathedral at Moscow. The tongue, which is 14 feet long and 6 at its greatest circumference, lies exposed at the foot of the tower; it weighs probably as much as some of our largest bells. An inscription on the bell states that it is made of the metal of a former one, which was cast in the year 1654, first rung in 1658, and greatly damaged by a fire on the 19th of June, 1701*. The inscription goes on to state that the Empress Anne added 72,000 lbs. of metal to the 288,000 lbs. which the old bell contained, and that the new bell was cast in the year 1734. This account makes the weight of the bell only 360,000 lbs., whereas several Russian authors state it at 12,000 poods, or 432,000 lbs. The truth is probably between the two. Much metal was brought by persons from all parts of Russia, and thrown into the furnaces while the bell was preparing; and the nobles vied with each other in

* The copy of the inscription given by Lyall, from whom we have taken this account, states 1668 as the year of its first ringing, and 1761 as that of its destruction. The last is obviously wrong, and the other probably so. The years of the world according to Russian usage are luckily added, which enables us to correct the errors as above.

casting in gold and silver plate, rings, trinkets, and ornaments of all kinds during the operation.

The Great Bell was suspended over the pit in which it now lies in the year 1737, on immense beams of wood, which were unfortunately destroyed by fire in the same year, by which accident a piece was broken out at the side large enough to admit two tall men to walk through abreast without stooping. It has of course never been suspended since. Some modern travellers, without a shadow of evidence, have denied that this bell was ever suspended, from the alleged impossibility of raising so great a weight. But mechanics will not admit such an impossibility. There is no doubt that the former bell was rung: the inscription on the present bell states the fact; and Korb, in his *'Diarium Itineris in Muscovia'* (1698), says that it was suspended, and the clapper pulled by forty or fifty men, half of whom stood on each side. The great fracture in the side of this King of Bells is an evidence of its having fallen; such an immense piece, seven feet in height, could never have been broken out by the fall of water upon the heated metal, as alleged by those who deny the suspension of the bell. The Tsar-kolokol is ornamented with a bas-relief of the Empress Anne in her coronation robes, surmounted by the figure of our Saviour, between St. Peter and Anna the prophetess; on the opposite side is the Tsar Alexei Michaelowitch, in whose reign the former bell was cast; over the head of Alexei is our Saviour between the Virgin Mary and John the Baptist.

The largest bell now rung in Russia is that called the New Bell, which was cast in 1817; it is hung in the Ivanovskaya Kolokolnya, or the belfry of Ivan, near the King of Bells. It is 21 feet in height and 18 in diameter, and its tongue weighs 4200 lbs. The history of this is like that of the Great Bell. A bell called the Bolshoi (the Big), cast in 1710, and weighing 124,000 lbs., was hung with thirty-two smaller ones in the belfry of Ivan. In the French invasion of 1812, the belfry was almost destroyed, and the Bolshoi thrown down and irreparably damaged. In 1817, when the court was at Moscow, the Bolshoi was broken up, and additional metal given by the emperor to found a new bell, which should weigh 144,000 lbs. The new cast was made by a Mr. Bogdanof, on the 7th of March, 1817, in the presence of the Archbishop Augustin, who gave his benediction, and of almost all the inhabitants of Moscow, who, as in the case of the Great Bell nearly a century before, proved their devotion by throwing in gold and silver plate, rings, and other ornaments. On the 23rd of February, 1819, the New Bell was moved with great ceremony on a large wooden sledge from the foundry to the cathedral; a Te Deum was celebrated, and the labour of dragging the sledge committed to the multitude, who disputed the honour of touching a rope. The movements were regulated by little bells, managed by Mr. Bogdanof, who stood on a platform attached to the bell;—part of the wall was taken down to admit its passage, and, as soon as it reached its destination, the people leaped upon Mr. Bogdanof, kissing his hands, cheeks, and clothes, and showing, by every means in their power, the gratitude they felt at the restoration of their old favourite. Some days after this, the New Bell was slowly raised to the place of its predecessor, and properly suspended. It may be said of the New Bell, as Dr. Clarke said of the Bolshoi, that its sound "vibrates all over Moscow like the fullest and lowest tones of a vast organ, or the rolling of distant thunder." This bell is covered with figures in relief, representing the late Emperor Alexander, his Empress, and the Dowager; also the Grand Dukes Constantine, Nicholas (now Emperor), and Michael; our Saviour, the Virgin, and John the Baptist.

The only rivals to the bells of Russia are those of China, and they appear to be quite out of fashion since the empire lost its native princes in 1644. One measured by Le Comte at Nankin, about the end of the seventeenth century, was lying on the ground amidst the ruins of the belfry in which it had formerly hung; its height was 11 feet 9 inches English, with 2 feet more for the handle, and its diameter $7\frac{1}{4}$ feet. The weight he computed at 50,000 lbs.: there were three more in the same situation.

The Emperor Yong-lo, who began his reign in 1403, transferred the seat of government from Nankin to Peking, and celebrated the event by casting nine bells of enormous bulk, one of which was iron. Seven of these bells were seen lying on the ground by Father Verbiest about the middle of the seventeenth century. Although he had passed the greatest part of his life in China, their existence was unknown to him, and would probably have remained so, had not the aid of Europeans been wanted to suspend one of them. Verbiest describes the bells to be well cast, but of a more cylindrical form than those of Europe. He measured one of them carefully; the dimensions given by him are in Chinese measure, which we have reduced to English feet and inches: the height was 14 feet 5 inches, the handle 3 feet 8 inches more; the diameter was 12 feet 11 in., and the thickness 13 inches.

The Chinese bells are struck with wooden tongues, like their gongs: this is said by some to give a dull sound, while others describe their tone as very melodious. In our opinion a finer sound is produced by a wooden than a metal clapper, though certainly not so powerful. The shape, being so unlike those of Europe, may cause a difference of sound. If the opinion of Ramsur be correct, neither shape is the best for the production of sound. He states that a segment of a sphere is the shape most adapted for that purpose, and instances a piece of lead left to cool at the bottom of a round ladle, which will be found very sonorous, while in no other shape can lead be made to render any elastic sound whatever.

MEERZA ABUL HASSAN.—No. I.

THROUGH the volumes which contain Mr. Morier's account of his first and second journeys through Persia, there are dispersed many curious and interesting anecdotes of Meerza Abul Hassan*, who was, about twenty-five years since, the Persian ambassador to this country. The information concerning this person, which lies dispersed through these and other volumes, published at distant intervals, gives an interesting view of the Persian habits of thought and feeling; and we therefore propose to put it together, with the addition of some details from our own resources.

He was born at Shiraz, in the year 1776, being the second son of Meerza Mahomed Ali, a man famous in Persia as an accomplished scholar, and who was one of the chief secretaries of Nadir Shah. A remarkable anecdote is related of the manner in which this person was preserved from a fate to which public men in Persia are much exposed. In one of those fits of capricious cruelty so common to Nadir Shah in his latter days, he ordered that Mahomed Ali should be burnt alive, together with two Hindoos, who had also incurred his displeasure. The unfortunate Meerza, on hearing his sentence, remonstrated with the tyrant, entreating that he might at least be permitted to die alone, and that

* "Meerza," placed thus before a name, is an hereditary civil title; placed after a name, as "Abbas Meerza," it denotes a prince:—to say "*Prince Abbas Meerza*," is a pleonasm. "*Khan*" is, properly, a military title, but is now frequently conferred on civilians about the court, who still, however, retain the prefixed "*Meerza*," if they had it before; thus:—"*Meerza Abul Hassan Khan*."

his last moments might not be polluted by the society of men who were of a different faith from his own. To this request the Shah consented: the Hindoos were immediately executed, but the death of Mahomed was postponed to the following day. That very night the king was murdered in his tent, and Meerza Mahomed Ali was saved.

It was during the reign of the present king's predecessor and uncle that the family of Meerza Aboul Hassan attained its highest degree of power. His maternal uncle was that able minister Hajji Ibrahim, whose name has been rendered so familiar to the English reader by Sir John Malcolm. The Meerza, and the other relations of the Hajji, shared with him in the administration of state affairs. The Hajji also gave him one of his daughters in marriage; and one of the others was given to a son of the king, and another to a person who afterwards became the second vizier of the kingdom. This Hajji Ibrahim is the person who, by his decision and good management, secured the throne for the present king on the death of his uncle. But when the monarch performed an act of ingratitude and barbarity, of which he has ever since repented, by destroying the minister who was as a right arm to him*, all his near relations shared in the proscription. Wherever residing, they were all seized in the same day and hour; some were put to death, others were blinded, and all their property was confiscated. Meerza Abul Hassan was at that time governor of Shooster: his elder brother was deprived of his sight, the youngest died under the bastinado, and the Meerza himself was seized;—his clothes were stripped from his back,—his hands were tied behind him,—and he was dragged as a prisoner to Koom, where the king then was. On his arrival, orders were given for his immediate execution. He was placed on his knees, his neck was made bare, and the executioner had already unsheathed his sword, when a messenger entered in haste and announced his reprieve. An old man who had known him from his boyhood, and cherished him as a son, when he heard of the order for his execution, threw himself at the feet of the king, and, pleading his youth and inoffensiveness, entreated that he might be pardoned. The king was softened, and granted his request. But Abul Hassan feared that the king might repent of his lenity towards him; and, after having sheltered himself for a time in the sanctuary at Koom, where he was fed by some women, who came to him under the pretence of paying their devotions at the shrine of the saint, he determined to leave the country until the anger of the king against his family should have subsided. It speaks well for his character that he fled first to Shooster, where he had lately been governor, and where, as his government had been lenient and temperate, he found a host of friends to relieve him, and was received with the hospitality for which the Arabs are remarkable. He dared not prolong his stay, and was leaving the place in misery and destitution when the inhabitants came to him in a crowd, and forced 7000 piastres upon him. After various wanderings, he embarked for India, and reached Calcutta at the time when the Marquis Wellesley was Governor-general. He resided in different parts of the country for two years and a half, at the termination of which he was at Bombay, and there received from the king a *firman* to return to Persia. He was assured that the king had forgiven him, and restored him to his favour. On his return, he found that his brother-in-law was become Ameen-ed-Doulah, or head-treasurer.

* He was degraded, and condemned to lose his eyes; and, when he exclaimed against the injustice and ingratitude of the king, his tongue was ordered to be cut out. He did not long survive. The king soon became sensible of the loss the country had sustained; and on all occasions of difficulty has been accustomed to exclaim, "Where is Hajji Ibrahim?"

When the English embassy of Sir Harford Jones became first acquainted with the Meerza, he was considered a person of much influence at court; and although he held no specific office in the government, he was in useful and active employment under his brother-in-law. He was ultimately appointed ambassador to the Court of London; and, on the 7th of May, 1809, left Tehraun for this country, in company with Mr. Morier.

In their journey through Turkey, the ambassador and his attendants were, on several occasions, made sensible of the difference between the physical condition and the usages of that country and their own. It is a trait of character not at all peculiar to the Persians, but it is amusing and instructive to observe to what an extent national jealousy against the Turks indisposed them to acknowledge the least superiority of any kind in Turkey and the Turks to themselves and their own country. Any comparison between the arid and unshaded mountains of Persia and the splendid foliage and rich vegetation of those parts of the Turkish dominions through which they passed was almost regarded as a gross national insult. As, however, they were keenly alive to the beauties of nature, and greatly enjoyed the shade of trees and the sound of running water, and as such spots frequently occurred during the course of their journey, they could not restrain their expressions of delight; though they would always add, at the same time, "What a pity this charming country is in the hands of these people! If we had it (and God grant we shall), what a paradise it would be!" This mode of expression is exceedingly characteristic of the Persians. It is quite true that things could hardly be worse managed than they are by the Turks; but the way in which the Persians manage their own country affords no evidence that Turkey would become a richer and happier land under their rule.

During the Meerza's stay at Constantinople, he was invited by the English ambassador to an entertainment, which consisted of a dinner under tents in the Buyukdere meadow, and a ball and supper, at night, in a house borrowed for the purpose. The Meerza did not seem at all astonished at the introduction of ladies into the society of men, as he had already acquired a general knowledge of our customs at the English settlements in India. But the attendants, who had just left the very innermost parts of Persia, by one common consent collected themselves together into a corner, and eyed every thing with the most anxious astonishment and attention. Their natural loquacity seemed to have quite forsaken them; and they sat with their mouths wide open, and eyes full-staring, and uttered not a single word.

But in the conduct of the Meerza and his people nothing was more striking than the truly Persian facility with which they adapted themselves to manners and customs completely adverse to their own habits of life. "I remarked two instances," says Mr. Morier, "during our stay at Constantinople: the first occurred one morning when I went to visit the Meerza, where one of his servants took off his cap, and saluted me, by a bow, in our fashion. Again, at a ball, several of his attendants took off their caps, and sat bald-headed", from the supposition that it was disrespectful, in European company, to keep the head covered whilst they saw every one uncovered. There were many other accommodations to our usages which would never have been yielded by a Turk;—such as eating with knives and forks, sitting at table, drinking wine, &c." Since this was written, however, the Turks have gone farther in the adoption of European customs than Mr. Morier appears, at that time, to have imagined possible.

* All the Persians have their heads shaven; and are never seen uncovered, unless by accident.

From Constantinople the party removed to Smyrna, and remained there until their final departure from Turkey. On the 7th of September, 1809, they went on board the *Success*, Captain Ayscough, to proceed to England. The Meerza soon became perfectly reconciled to the usages of a ship; he slept in a cot, and always employed a knife and fork in eating. He did not miss a single opportunity of informing himself on every thing he saw on board; and whatever he learned he carefully noted in a book. This was, indeed, his constant practice all the time of his absence from Persia; and, after his return, his journal was read with great avidity by his countrymen. The practice of keeping a journal of proceedings and observations is not unusual among Persian travellers.

The attendants of the Meerza seem to have been so far influenced by the example of their master, that they were much more quiet on board the ship than might have been expected from the natural antipathy of Persians to the sea. They complained sometimes, however, of the badness of the water, the hardness of the biscuit, and the want of fruit. Mr. Morier was struck with their natural ignorance of relative distance. They had been always accustomed to calculate distances by *menzils*, or days' journeys; and they were surprised to find it impossible to continue such reckoning. Such an extent of water seemed to them incomprehensible; and one of them gravely said to Mr. Morier—"This is quite extraordinary: this country of yours is nothing but water!" All of them were particularly astonished that women and boys went to sea. The Meerza himself, seeing some women on board the *Success*, exclaimed, "Is it possible? If I were to tell our women in Persia that there were women in ships, they would never believe me. To go from one town to another is considered a great undertaking among them; but here your women go from one end of the world to the other, and think nothing of it. If it were even known in my family that I was now in a ship, and on the great seas, there would be nothing but wailings and lamentations from morning to night."

One of the other things that struck the Persians as most extraordinary on board the ship was the business of signals. They seemed very much inclined to think that Mr. Morier was imposing upon their ignorance when he informed them that, at six miles distance, they might ask any questions from another ship and receive an immediate answer; and that, when they should reach England, their arrival would be known in London in ten minutes, and every necessary order returned before they could get out of the ship. All these things the Meerza carefully noted down in his book, repeating the exclamation usual with him when anything strikingly useful was brought under his notice;—"God grant that all such things may take place in my country too!"

Having now brought Meerza Abul Hassan to our shores, we may pause, and make his proceedings in England, and on his return to Persia, the subject of another paper.

BARBAROUS COMBATS IN JAVA.

Cock-fighting is the principal amusement among the inhabitants of the Philippine Islands, and indeed of the whole Indian Archipelago; but the cock is not the only animal from the choleric and courageous disposition of which they extract a brutal enjoyment. At Java, they even make fighting-matches between quails; and it is remarkable that, for the purpose of this amusement, the male is held in estimation: it is the small and timid, and they therefore set a much higher value on the females, the irascible and deter-

mined character of which affords the most lively satisfaction to the amateurs of these cruel sports. Upon the strength and courage of such combatants these islanders often hazard considerable sums; indeed, to such a pitch of desperate puerility have the Javanese been carried by their gambling infatuations, that they sometimes venture all their property upon the direction which a paper kite may take. The object of each player in this game is to break the string of his adversary's kite; and it is not unusual, in Java, to see fifty or sixty paper kites flying one against another over a small town.

But there are other combats, in the same country, intended for the public amusement. These are generally between ferocious animals; and that between a royal tiger and a buffalo is preferred to any other. The buffalo and the tiger are introduced into a cage made of strong bamboos, and about ten feet in diameter. Their first rencounter in this contracted place is most terrible. The buffalo is always the assailant, and thrusts the tiger with fearful violence against the bars of the cage, endeavouring to crush him to death, while the tiger attempts to spring upon the head or back of his adversary. After the first shock, a parrying fight is usually maintained until one of the animals is enabled to seize an advantage. The advantage is usually with the buffalo in the first onset; but if he does not then kill or materially injure his adversary, the situation of the tiger much improves from his superior agility.

According to Stavorinus, the two animals are sometimes transported to a large plain, where an enclosure is formed by a four-fold line of Javanese, armed with pikes. When all is ready, men appointed to the work proceed to excite the rage of the poor animals before they are suffered to quit their respective cages. The buffalo is excited by a sort of nettle, the pricking of which is so insupportable as to irritate the most quiet disposition to a perfect fever of rage. While they are thus dealing with the buffalo, other men provoke the tiger by pricking him with pointed sticks,—by surrounding him with smoke (a thing he hates), and by throwing boiling water upon him.

The Javanese, whose perilous office it is to let the excited animals forth from their cages, are not allowed to leave the place, after they have done this, until they have several times saluted the prince, who then makes a sign for them to withdraw into the ranks with the other guards. They must then move off slowly, and are not permitted to run; but we do not suppose there is any thing cruel to the men in this regulation, as running would be more likely than a slow motion to draw the attention of the animals towards them.

It was customary, not long since, to make criminals condemned to death fight with tigers. The bodies of these miserable men were rubbed with *curcuma*; they were then clothed with a sort of yellow jacket, or waistcoat, and armed with a poignard, after which they were left exposed in the arena. Stavorinus relates a singular circumstance which happened to a criminal condemned to be devoured by tigers. When the poor fellow was thrown into the ditch in which the tigers were, he had the good fortune to fall astraddle upon the back of the largest of them, and from which the most mischief was to be apprehended. The animal, at this unlooked-for event, exhibited much astonishment and alarm: he did not attempt to injure the man, and none of the others dared attack him in this situation. This incident did not, however, save the poor wretch's life, for the prince gave orders that he should be killed.

In 1812, two men were exposed to wild beasts by order of the Sultan of Yugyukerta. Each of them was furnished with a poignard (*corse*), the point of which had been blunted; and the cage was opened, from which a tiger bounded forth. One of the criminals was almost immediately rent in pieces; but the other maintained the fight with his blunt dagger for nearly two hours, and with such success, that he at last killed his adversary by several wounds upon the head, and under the eyes and ears. At present, these cruel amusements are nearly at an end: they have, in general, as well as mutilation and torture, been abolished by various treaties with Europeans.

* The Office of the Society for the Diffusion of Useful Knowledge is at 25, Lincoln's Inn Fields.

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* It is the vulgar notion in Persia that the English, as a nation, live in ships upon the water, and have no territorial possessions, except in the countries of others. Our present Persians seem still to have retained a lingering impression of this sort.

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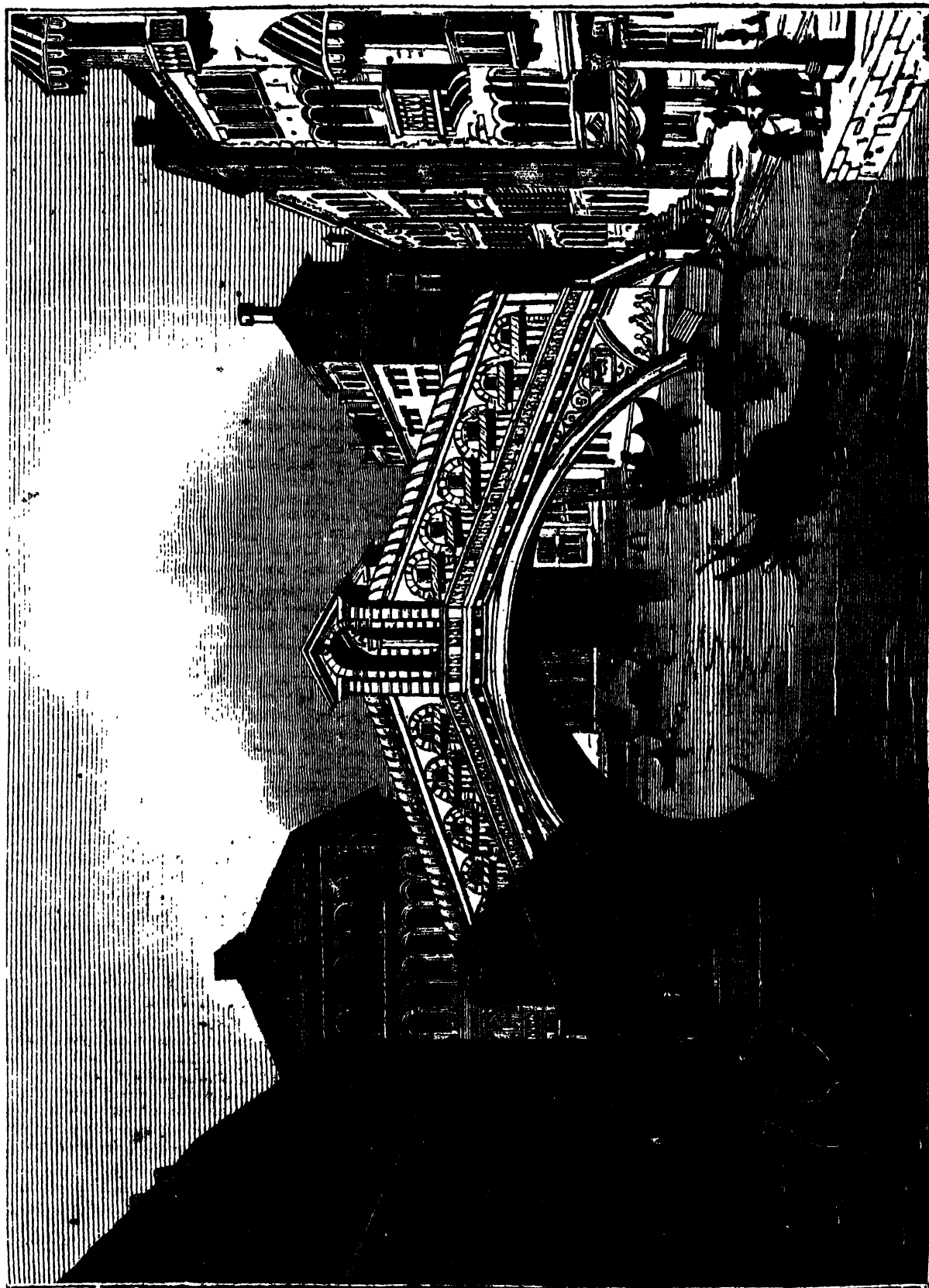
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164.]

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THE RIALTO.



[The Rialto at Venice.]

The peculiar situation of Venice, in the midst of the waters—

"Rising with her tiara of proud towers"

from their very bosom—renders a vast number of bridges necessary for the public convenience. Accordingly, not less than 500 bridges, of different sizes, and mostly of stone, have been thrown over the marine streets of the city. Of these the finest and most remarkable is the Rialto, represented in our wood-cut. The grand canal at Venice divides the city into two nearly equal parts, and it is over this canal, about the centre of the city, that the Rialto is built. A bridge of wood occupied the site until the year 1587, when the republic, under the Doge Pascal Cigogne, determined to replace it with one of stone. Accordingly, the present structure was commenced in the following year, from the designs of Michael Angelo, and was finished in the year 1594. It has, in its day, been celebrated as a masterpiece of art. It consists of a single arch, "so wide," says Martinière, "that a galley, the mast of which is lowered, may pass through with extended oars." It may be clearer to state that the bridge consists of one flat and bold arch of nearly 100 feet span, and only 23 feet above the water. The breadth of the bridge is 43 feet, and this is, on the top, divided by two rows of shops into three narrow streets, of which that in the middle is the widest; and there is in the centre an open archway, by which the three streets communicate with one another. The whole exterior of the bridge and of the shops is of marble. At each end of the bridge there is an ascent of 56 steps; and the view from the summit of the Rialto is remarkably interesting and magnificent. The foundation of the structure extends 90 feet, and rests upon 12,000 elm piles. The erection of the bridge is said to have cost the republic 250,000 ducats, which, considering the difference in the value of money, must have been equal to about 300,000*l.* at the present day. The Rialto, the Piazza di St. Marco, and the street and garden made by Napoleon, which is described as a magnificent work, are the only promenades at Venice.

We cannot omit to quote, in this place, a passage from 'Childe Harold,' in which the structure we have under consideration is mentioned. Speaking of Venice, the writer says,—

Upto us she hath a spell beyond
Her name in story, and her long array
Of mighty shadows, whose dim forms despond
Above the dungeless city's vanished sway;
Ours is a trophy which shall not decay
With the Rialto. Shylock, and the Moor,
And Pierre, cannot be swept or worn away * * *
The keystones of the arch; though all were o'er
For us re-peopled, were the solitary shore."

Lord Byron is not the only traveller to whom the Rialto has been invested with additional interest from such associations. The author of 'Sketches Descriptive of Italy' says—"When we stood on the Rialto, we remembered that it was the spot where the Christians 'flouted' Shylock; and we thought more of the 'Merchant of Venice' than of the beauty or singularity of the noble arch. I confess, however, that when I did begin to look at the bridge itself, I did not admire it quite so much as I expected. It is of great height in the centre, being mounted and descended by long flights of steps; and of great width, being divided by ranges of little shops into three distinct though narrow streets. These surmounting buildings greatly injure the elegance of the whole bridge, and appear to press heavily upon the single elliptic arch. Lightness should have been the characteristic here."

After all, it seems doubtful whether Shakespeare or Otway intended, or might to have intended, this bridge when they mention the Rialto. It was probably men-

tioned by both merely as the name of a place in Venice with which they were most familiar; or because others had used it before them. Mr. Matthews, in his 'Diary of an Invalid,' says—"If no more were included under the name of Rialto than the single arch across the canal, the congregation of merchants, before whom Antonio used to rate Shylock, must have been a small one, and Pierre could not well have chosen a worse place for his 'evening walk of meditation.' The fact is, however, that the little island which formed the cradle of Venice, where the first church was built by the fugitives from the persecution of Attila, was called Riva-alta, or Rialto. Here too was the exchange where the merchants met. In process of time the bridge leading to the island was called the Rialto, and has at last become the sole proprietor of the name."

To this we may add, in the case of Shakspeare, that the present bridge had only been completed a year or two when the 'Merchant of Venice' was written; and every passage, in which the Rialto is mentioned or alluded to, seems to describe it rather as an exchange than a bridge. First, Shylock says:—

"He rails
Even there where merchants most do congregate,
On me, my bargains, and my well-won thrift,
Which he calls interest."

This place is afterwards said to be the "Rialto":—

"Signior Antonio, many a time and oft
In the Rialto you have paid me
About my monies and my usances."

And, finally, Shylock's abuse of Antonio when absent seems to countenance the same interpretation:—

"A bankrupt, a prodigal, who scarce dare show his head on the Rialto; a beggar that used to come so smug upon the mart."

**Reproof.*—Chide a man for being angry when he is angry, and what will you get by it, but only some of the foam cast upon you? As God is said to come down in the cool of the day to reprove Adam; so likewise should we come in the cool reason of a man's passions, when all is quiet and temperate within, for then there is the greatest probability of success.—*Hopkins.*

HAWKING.—No. II.

[Continued from No. 161.]

JULIANA BERNERS's curious old work to which we have alluded goes by the name of the 'Book of St. Albans,' at which town the first edition of it was printed about the year 1481. The noble dame obtained from her grateful contemporaries the praise of being "a second Minerva in her studies, and another Diana in her diversions." Her subject was well chosen: hawking was then the standing pastime of the noble, and the lady abbess treated it in the manner the most likely to please. The book became to falconers what Hoyle's has since become to whist-players; but the Dame Juliana's had moreover the merit of paying proper homage to the jealous distinctions between man and man, as then established. According to the 'Book of St. Albans,' there was a nice adaptation of the different kinds of falcons to different ranks. Thus, such species of hawks were for kings, and could not be used by any person of inferior dignity;—such for princes of the blood, such others for the duke and great lord, and so on, down to the knave, or servant. In all, there were fifteen grades; but whether this number was so small owing to the species of birds, or because it included all the factitious divisions of society then recognized, we cannot well determine. On the latter point the abbess was probably an authority, for in the same odd book in which she discusses hawking, and says something of hunting, she gives a treatise on the venerable science of heraldry. Some naturalists assure us that there are as many as 150 distinct birds of the falcon genus; but many of

these species could never be properly trained to the sport, or, to speak technically, "reclaimed," and, still more, were probably unknown to our ancestors.

In speaking of the just appropriation of the birds, Dame Juliana's black-letter volume reminds us somewhat of the nursery rhymes "Who killed Cock Robin?" For example:—

"These hawks belong to an emperor:

"The eagle, the vulture, and the merloun; and these be not enlured nor reclaimed, because they be too ponderous to the perch-portatif; and these three, by their nature, belong unto an emperor.

"These hawks are due to a king:

"The gyr-falcon, and the tercel of the gyr-falcon, and these are due to a king.

"Hawks that be for a prince:

"The falcon-gentle, and the tercel-gentle, and these be for a prince."

And so it continues down to the sparrow-hawk for a priest, a musket for a holy-water clerk, and (last of all) a kesterel for a knave, or servant.

The same curious book, which was many times reprinted, between the end of the fifteenth and middle of the seventeenth century, with additions and alterations, contains minute instructions as to the proper modes of catching, rearing, clothing, educating, feeding, and physicking, these indispensable birds; together with numerous lessons in the "gentle craft" of flying them at different sorts of game. Our space, and respect for the patience of our readers, must prevent us from entering into particulars, but we will touch slightly on a few points which we think may be interesting. In so doing we shall not limit ourselves to the 'Book of St. Albans,' but occasionally draw upon other writers, who, with no small degree of self-importance and pedantry, have laid down laws on the subject of hawking.

Mrs. Glass, in giving her valuable instructions about cooking a hare, says, very wisely, that we must first "catch the hare," not telling us, however, how that is to be done; but Juliana Berners and her followers minutely instruct us in the modes of catching a hawk. We will condense this, and some of the lessons that follow, as much as we can.

The hawks, that they might be tamed, were to be taken young. When the young birds began to clamber about on the boughs of a tree, they were called boughers (or, according to the orthography of those days, bowers); after the feast of St. Margaret, when they began to be able to fly from tree to tree, they were called branchers, and then was the proper season to ensnare them. For this purpose, green or blue springes, or nets, were recommended, "so that the branchers see them not among the green leaves." When caught, extreme care was necessary not to injure the bird's talons and pinions. The next operation was to blind-fold, or, as it was termed technically, to "inseel" the young prisoner.

"To do this," say the authorities, "take needle and thread and pass it through the upper eye-lid, and so of the other, and then make the threads fast under the beak of the hawk, so that she see not, both her upper lids being brought down over her eyes." This was the ancient and approved practice; but Dame Juliana Berners informs us that, in her days, there were some "falconers of latter and better knowledge" who had discovered that the bird could be blind-folded without being wounded and tortured. We beg attention to the useless cruelty, and to the length of time that elapsed before its uselessness was discovered. And yet the discovery was not so great or difficult. It was simply this;—that a piece of cloth, or strong handkerchief, drawn over the bird's head, would more effectually shut out daylight than imperfectly sewing up its eyes.

* Too heavy to be carried on the fist in falconer fashion.

But in those days all discovery went at a snail's pace. After the young hawk was inseeled, she was to be carried home, cast on the perch, and left a night and a day in darkness, and without food. This time having passed, the falconer was instructed "to take and cut away the thread softly for breaking the eyelids," if the bird had suffered from the needle and thread; but otherwise he had only to remove the cloth. "Thou wilt then," continue the masters of the craft, "go and begin to reclaim her, and deal easily with her till she will sit fairly upon thy fist; and this second night after feeding her, make her keep awake all night, and eke the next day, and then she will be easy enough to be reclaimed; and the first meal she eateth, let it be hot capon-meat, and give her enough thereof."

Hawks, however, were not always tamed quite so soon. In one of the strangest works we have looked into—"An approved Treatise of Hawks and Hawking," by Edmund Bert, Gent., which was published in London, in 1619—the patient and erudite author says,—"I have heard of some who watched and kept their hawks awake seven nights and as many days, and yet would they be wild, rammish, and disorderly." This "gentleman" is altogether a curiosity; he reared hawks himself, and with such success that he proudly boasts he had sold a simple goshawk and tercel of his training for one hundred marks. From his own account, the greater part of his time—almost the whole of it, except when he slept—must have been occupied by his birds. "There cannot," he says, "be too much familiarity between a man and his hawk." And yet this gentleman thought his time well employed, for he also says, "I feel it most burdensome to spend my time idly." Few who professed it could ever have had a higher notion of the gentle craft than the said Edmund Bert, who thus philosophizes on the subject:—

"Whoever undertaketh this profession, I will wish him an able body, a quick spirit, and, most of all, an earnest love and delight thereunto; to such a man a hawk will quickly teach wisdom, but of him that wanteth wit she will make a fool, and of a dull spirit a true pack-horse." It must, however, be admitted that great patience and temper, if not wit and talent, were really required in the thoroughly taming and teaching the fierce birds. In 'Country Contentments,' another book of the same sort, written by Gervase Markham, and published in London, in 1615, those who shall choose "this most princely and serious delight" are recommended to make use of "often gazing and looking of them in the face, with a loving and gentle countenance, by the which the hawks will become acquainted and familiar." Master Gervase's own practice was constantly to carry about with him the bird he was reclaiming—to accustom it to the sight of dogs and horses—to all sorts of noises, even to the clatter and hammering of a blacksmith's or farrier's shop—and to make it stand without flinching or blinking before a fire, or lighted candles. He says, when the hawk is "passingly reclaimed, you must bring her to lure by easy degrees; first, by dainties, making her jump upon your fist, then to fall upon the lure, when held out to it, and then to come at the sound of your voice; and to delight her the more with the lure, have it ever garnished, on both sides, with warm and bloody meat."

These lures seem to have been of various sorts. In very old times, a "Tabur-stycke," which was merely a piece of wood, rounded and besmeared with blood, was in use; but, with the progress of civilization, a better lure, called a "hawker," was introduced. The hawker was a staff about twenty-two inches long, cased at the upper part with iron, having a bell "rather of a sullen tone than musical," and the figure of a bird, with outstretched wings, carved at the top. When this instrument was agitated, a reclaimed hawk would descend to

it from the clouds ; but, we believe, for a bird of the highest training nothing more was required than to shake the tasseled hood we see in the hand of the sportsman in our engraving, and to use the voice.



[Luring the Hawk. From Reidinger.]

The falconer, or "austringer," as he is frequently called in old English, is told by the scientific to make one meal serve the hawk for three, if, while under the process of reclaiming and enluring, she should at any time become indocile, or rammish. But when low diet has "tamed her fiery spirit down," he must gradually increase her meals, and coax her with tit-bits. Pigeons, choice fowls, and chickens "that be small and tender," were consequently much in request in all mews. In 1531 Sir Thomas Elyot lamented that providing the numberless hawks then kept by the English gentry with their customary food of hens almost threatened the total extinction of the valuable race of domestic poultry.

As a young terrier is trained to killing rats by being first let loose upon mice, or very small rats, so the falconer, when he first took a young hawk into the field, only flew, or cast her off, at pigeons or partridges, and such easy game ; for if the bird was foiled or punished at her first beginning by larger game, she almost invariably lost courage, and became what sportsmen called an "eyas," a "foul kesterel," or "degenerate kite," and other contemptuous names. If the hawk killed the partridge at which she flew, she was rewarded with the head and neck, which was cut off and rubbed over with blood ; and when she had regaled herself, she was left some time "to rejoice," which signified to clean her beak, prune her feathers, &c. Some hawks could

never be trained to follow larger game than pheasants and partridges ; others would only fly at the huge heron, the wild goose, or duck ; but the true bird might be cast off equally well at all these and other kinds of game. When the hawk in her flight and attack did not kill her prey, but only strike its feather, she was said "to rife," and if she did this frequently she was called a "rifer." The names and titles belonging to hawks, and fixed terms to commend their sundry properties, are prescribed with true technical nicety by the old writers. According to the 'Book of St. Albans,' "You shall say that such a one is a fair hawk, a huge hawk, a long hawk, a short thick hawk ; but not that she is a great hawk, or in that manner. Also, you shall say, this hawk has a large beak, or a short beak ; but call it not a bill ! You shall say, cast your hawk to the perch, and on no account, set your hawk upon a perch."

Careful directions were given as to the proper fashion of making and putting on the hoods. Above all things the hoods were to be drawn gently over their heads, for if the birds were hurt by them they would not willingly return to the tassels. But, besides hoods, the hawks were decorated with two small bells, the proper choice of which was another matter of capital importance. These bells were not to be too heavy, nor of unequal weight ; they were to be clear, shrill, and well-sounding, but not both of one sound. One bell was to be at least a note higher than the other, and great attention was to be paid at all times that neither was cracked. It appears that, in old times, these bells were chiefly imported. "Of sparrowhawk-bells," says the 'Book of St. Albans,' "there is choice enough, and the charge little. But for goshawks, sometime bells from Milayne (Milan) were supposed to be the best, and undoubtedly they be excellent, for that they are sounded with silver, and the price of them is thereafter. But there now be used bells out of the Low Countries which are approved to be passing good, for they are principally sorted ; they are well sounded and sweet ringing, with a pleasant shrillness, and excellently well lasting."

The various accoutrements of the sportsman were of course attended to by these minute framers of instructions. After the lure, the great leather glove seems to have been the most important part of their equipment. Specimens of these hawking gloves, of various sizes, and for both sexes, are still preserved in some cabinets of the curious. Although there were many operations in the sport, such as besmearing the hawker, breaking the herons' legs, and the like, not at all well suited to female delicacy and gentleness, falconry was pursued by our ladies, both on horseback and on foot, with excessive eagerness. Strutt, in his industrious work on the 'Sports and Pastimes of the English,' gives one or two engravings, from very old pictures, representing ladies followed by dogs, and running on foot, with their hawks on their fists, to cast them off at game. Indeed, John of Salisbury, who wrote in the thirteenth century, says that the women even excelled the men in the knowledge and practice of falconry, whence he ungallantly takes occasion to call the sport itself frivolous and effeminate. Taken altogether, however, a hunting party of this kind, composed of knights and dames, mounted on their piaffing manège horses,

"Ryding on hawking by the river,
With grey goshawk in hand* ;"

and with their train of falconers, in appropriate costume, and their well-broken dogs, and the silver music of the bells, mingled with a variety of other sounds, must have been a pleasant enough scene to behold, or to form part of.

For most species of game, it appears that spaniels,

* Chaucer.

cockers, or other dogs, were required to rouse the birds to wing. When at a proper elevation, the hawk, being freed from his head-gear, was cast off from the sportsman's fist, with a loud whoop to encourage her. But here great science was required; and it was frequently made matter of anxious and breathless debate as to whether the *far jettee* or the *jettee serré* should be adopted. These terms, like many more employed in those days in hawking and hunting, were derived from the French. *Jeter* signifies to throw, or cast off. The *far jettee* meant to cast off the hawk at a distance from the quarry it was to pursue; and the *jettee serré* to fly it as near to the bird, or as soon after the destined prey had taken wing, as possible. But many considerations were involved in these decisions:—the species of the quarry,—the peculiar properties of the hawk on hand at the time,—the nature of the country,—the force and direction of the wind, and numerous other circumstances, had to be duly pondered.



[Casting-off the Hawk. From Reidinger.]

When the hawk was cast off, it flew in the direction of the game, and endeavoured to surmount it, or get above it, in its flight. To obtain this advantage, when herons and other birds strong on the wing were pursued, the hawk was obliged to have recourse to scaling, or ascending the air by performing a succession of small circles, each going higher and higher, like the steps of a winding cork-screw stair-case. In whatever way it was performed, this was called "the mount." At times, both the pursuer and pursued would fly so high as almost to be lost in the clouds. When the hawk reached a proper elevation above the game, she shot

down upon it with all her force and velocity, and this descent was technically called "the stoop," or "the swoop." John Shaw, Master of Arts, of Cambridge, who published a strange book called 'Speculum Mundi' (The World's Looking-glass), in that learned city, in 1635, informs us that the heron, or heronsaw, "is a large fowle that liveth about waters," and that hath a marvellous hatred to the hawk, which hatred is duly returned. "When they fight above in the air, they labour both, especially for this one thing, that one may ascend and be above the other. Now, if the hawk getteth the upper place, he overthroweth and vanquisheth the heron with a marvellous earnest flight." It should seem, however, that this was not always the case, and that the heron sometimes received the hawk on its long, sharp bill, and so transfixed and killed her. When the hawk closed or grappled with her prey (which was called *binding*, in falconry), they generally tumbled down from the sky together, and the object of the sportsman was, either by running on foot, or galloping his horse, to get to the spot as soon as they should touch the earth, in order to assist the hawk in her struggle with her prey.

We believe all birds of the Falcon genus naturally strike their prey with their talons, or claws; but in one of our engravings we see a hawk striking and *binding* a wild duck with her beak. So correct a delineator as Reidinger was not likely to make a mistake; and indeed we see it mentioned in one of the books we have consulted, that a hawk, well reclaimed and enlured, would kill the smaller game with her beak, or the strong percussion of her breast-bone, and then hold, or bind it, with her beak.

MEERZA ABUL HASSAN.—No. II.

[Concluded from No. 163.]

WHEN the Persian ambassador landed in England, the first thing which strongly attracted his notice was the splendour of our "caravanserais," as he called our hotels. Such magnificent looking-glasses as in Persia are peculiar to royal palaces, and the quantity of plate and glass-ware which appeared at the dinner-table, drew from him expressions of the strongest surprise, particularly when he was told that these were the common appendages of our "caravanserais." The people of the inn at Plymouth, where he was in the first instance accommodated, partook of the common persuasion in England, that nothing can be too hot for a native of the East; and it being then on the verge of winter, they loaded his bed with such a quantity of warm covering that he had scarcely been in it an hour before he was obliged to get out again. The heat was insupportable to one who had all his life slept on nothing but a mattress, on the bare ground. In this case he walked about the greater part of the night, and all the people of the inn followed him in procession, being quite unable to discover what could be the matter with him.

A public coach was hired for the conveyance of the ambassador's servants to London. Four of them who got inside seated themselves cross-legged, in which posture they completely filled the coach; and it was impossible to convince them there could be room for more, although the vehicle was calculated to contain six persons in the ordinary mode of sitting. They armed themselves for the journey with pistols and swords, and each of them carried a musket in his hand, as is usual in their own country; and persisted in taking these encumbrances with them in the coach, although they were assured that they need not apprehend the least molestation. The Meerza himself greatly enjoyed the novelty of a carriage. The speed with which he travelled delighted him, particularly when he perceived that the motion was as rapid by night as by day; but

that all this was done without a guide greatly surprised him.

In Persia, a deputation (*Istakbull*) headed by some person of distinction is sent to meet an ambassador; and, wherever he stops, the people come out in a body to meet him. The Persian ambassador was therefore greatly surprised at the little attention his progress excited. Two posts from London, he was met by two gentlemen from the Foreign Office; but, on a nearer approach to town, his uneasiness at the non-appearance of such an *Istakbull* as he felt entitled to expect became very great; and his mortification could not be allayed by the information that no disrespect was intended, and that our modes of doing honour to ambassadors were different from those of Persia. To him the interest of the road must greatly have increased on the near approach to the city; yet he desired to have both the glasses of the carriage drawn up, for he said that he did not at all understand the nature of such an entry, which seemed to him more like smuggling a bale of goods into a town than the reception of a public envoy. The fine house and splendid establishment which he found ready to receive him in London were insufficient to raise his spirits after such a mortifying reception.

The first object of the Meerza was to deliver his credentials to the king as soon as possible, because it is considered a slight in Persia if this ceremony be delayed. Here again he was disappointed; for, in consequence of his Majesty's indisposition, on an intermediate levee-day, ten days elapsed before he could be introduced at court. He said he should lose his head for this on his return to Persia, and bitterly lamented his own hard fate. As the day approached, he felt great anxiety about his reception. In his own country, all the details of the interview are matters of previous negotiation; and a Persian triumphs less that he has successfully transacted a piece of public business, than that he has arranged a ceremonial in such a manner as he thinks most honourable to his sovereign and himself. His idleness of the court of George III. were formed from what he recollected of that of the Shah of Persia, on approaching to whom many ceremonies are exacted. He is first seen at a great distance; he is approached with great caution, and with many profound inclinations of the body. In his immediate vicinity the shoes are taken off, and none enter the room but by his special command. Nothing could possibly present a greater contrast to this than the easy and unceremonious manner with which the aged king received the Meerza, in a private audience, at the "Queen's House." His Excellency expected to have seen the king seated on a throne at a distance, and that he should not himself have been allowed to approach within several paces. His astonishment may therefore be imagined, when he was at once introduced into a small room, and was taken to a person standing there, whom he took to be a *capjee*, or porter, and was informed that this was the King of England. After this, the respect which the ambassador had before felt towards the English monarch was greatly diminished. He said that, if any blame was imputed to him for not having delivered his credentials immediately on his arrival, all would be pardoned him when the Shah understood that he was not desired to take off his shoes as he approached the king, and that he delivered his credentials into his own hand. These circumstances strikingly illustrate the truth of a remark made by an acute Persian:—"You speak to the ears and understandings of other people, but you must speak to the eyes of my countrymen."

It was in the month of November when the ambassador arrived in London, and the gloom of the weather had a very sensible effect upon his health and spirits. For two months he never saw the sun, and his suite were perfectly persuaded that they had got into

regions beyond its influence; but one day several of them rushed in to inform their master that they had just seen the sun, and that, if he made haste, perhaps he might see it also.

The Meerza acquired with great facility our habits of life, and soon became accustomed to our furniture, our modes of eating, our houses, our forms and ceremonies, and even our language;—"though perhaps," says Mr. Morier, "with respect to the latter acquirement, it might rather be observed, that he soon learnt sufficient just to misunderstand every thing that was said."

It would be difficult to define the impression made by such things as an opera or a play upon a Persian. When the Meerza was first taken to the opera, he evidently felt a strong impression of surprise on entering his box, which his pride made him endeavour to conceal. He was afterwards taken to see the play of 'King Lear;' and the story, which is strongly calculated to affect one whose natural respect for majesty is so great as that of a Persian, brought tears from him in great plenty, although he did not understand the language spoken by the actors. On being taken to hear a debate in the House of Commons, he immediately sided with a young orator, who gained him over by his earnest and impassioned manner; and, at the House of Lords, the great object of his remark was the Lord Chancellor, whose enormous wig, which he compared to a sheep-skin, awoke all his curiosity. But of all the sights which the Persian Ambassador witnessed in London, none seem to have interested him so much as the anniversary of the charity children in St. Paul's Cathedral. He appears to have acquired on that occasion more real esteem for the institutions and national character of England, than he did from aught else that engaged his attention in this country; for he frequently, afterwards, referred to his feelings on that occasion.

But the time at last came when Meerza Abul Hassan was to return to his own country, accompanied by Sir Gore Ouseley, who had been appointed ambassador to the Court of Persia. It is gratifying to our national feeling to know that, with the prospect of home before them, many of the Persians left this country with regret, and shed tears on parting from their English friends; several would willingly have remained in England; and one in particular, who had been struck with the quiet and security of an Englishman's life, compared to that of a Persian, exclaimed that he could not wish for a better paradise than Chelsea Hospital, where, for the remainder of his days, he could sit under the trees, do nothing, and drink as much porter as he liked.

It was on the 18th of July, 1810, that the vessel containing the ambassadors and their suites left Spithead. On the 11th of September she made Cape Frio, and, as she approached the shore, the attention of the Persians was directed to the *Yengee Duniah*, or "New World," of which they had heard so much in their own country, and concerning which they were prepared to believe any thing, however marvellous. They seemed, therefore, greatly surprised to see nothing but common ground and common trees, and expressed great astonishment that the New World should be so much like the old.

Mr. Morier, who accompanied the party as secretary of embassy, often endeavoured to awaken the mind of the Meerza to the objects of sublime contemplation which the great ocean offered. But his Excellency could see nothing but misery, inconvenience, and disappointment, in a sea voyage; and insisted that he could contemplate the wonders of creation quite as well on a horse as in a ship. He generally finished his arguments on this head by a quotation from Saadi, his favourite poet, which runs to this effect:—"I had rather

give one hundred *tomauns* than pass over even one wave of the sea."

On their arrival at Bombay it was notified to the Meerza that his conduct in England had the entire approval of his sovereign, who, by a special firman, invested him with the title of Khan. This was a happy relief from the anxiety which he had long felt on this subject. In Bombay a house was prepared for his reception, a mehmandar appointed to attend him, and he and all his suite were entertained at the public expense. His behaviour there was rather assuming, in consequence apparently of the great attentions he had received in England. Against all precedent, he demanded the tribute of the first visit from the Governor of Bombay. His argument was, that he had been visited, not only by the father and grandfather of the East India Company (meaning the Chairman and Deputy Chairman), but that he had also received the first visits from all the King of England's viziers, not excepting the prime vizier, who all came to see him clothed in the same dresses in which they appeared before their own sovereign. How then could he pay the first visit to a man who was only a servant of the Company, which Company was subject to the king? The Governor at length ceded the point, and a few days afterwards the Khan, arrayed in crimson velvet, and with a diamond-hilted dagger in his girdle, returned the visit, and was received in great state. Whenever, during his stay in Bombay, Mr. Morier called to see him, he always found him surrounded by Indians, and his own countrymen, holding forth upon his travels; and it was pleasing to hear him express his gratitude for the kindness with which he had been received during his stay among us, and his enthusiastic admiration of England. With this enthusiasm, added to the propensity to exaggerate natural to a Persian, he kept his auditors in constant wonder. "It would be impossible," says Mr. Morier, "to enumerate all the amusing things which he said of us, -our women, our amusements, and our government."

When the English party visited the caverns of Elephantia, they were surprised, on entering the great cave, to see the Persian Ambassador, with a serious and collected air, pacing its length with all the gravity of an antiquarian, while his companion, a Persian merchant, was observing him with great astonishment. The Khan seemed quite impressed by what he saw, and said the ancient remains in Persia were not to be compared with it. This spirit of investigation he must have caught from the English, for, before he left Persia, he used to laugh at the zeal with which the gentlemen of the embassy sought for antiquities, which seemed unaccountable to him, as it does to all his countrymen. This is one of many facts which illustrate the extreme facility with which the Persians adopt, not only the customs, but the habits of thought and action of other people.

At an hour declared auspicious by the astrologers, on the 3rd of March, 1811, the Persian Ambassador landed in his own country, at Busheer. Owing to the want of a regular landing-place, he was obliged to be carried out of the boat on men's shoulders. A number of Persians pressed around him to offer their services, but he declined them, and desired that the English sailors might bear him on shore, saying, by them he had been brought thus far, and by them he would be landed—a sort of attention well calculated to gain the hearts of the seamen.

Sir Gore Ouseley, on his introduction to the King of Persia, at a subsequent period, as ambassador from England, took occasion to extol the conduct of the Persian Envoy during his stay in that country. The king appeared to be highly gratified, and ordered Meerza Abul Hassan Khan to be called. He soon appeared,

and stood, with his shoes off, by the side of a basin of water, in the court below the open apartment in which the king was seated. The king then said to him, aloud—"Aferin, aferin, well done, well done, Abul Hassan! You have made my face white in a foreign country, and I will make your face white in this. You are one of the noblest of the families in my kingdom, and, with the help of God, I will raise you to the dignities of your ancestors;" at which words the Meerza knelt down, and actually touched the earth with his forehead. He was afterwards employed as ambassador to the Court of St. Petersburg, and, after having discharged that public business, was enabled, through a pension allowed him by the East India Company, to live in his own country with an independence of royal caprice or cupidity, of which the comfort can only be understood in such a country as Persia. When Colonel Johnson was at Tehraun, in 1817, he paid the Meerza a visit, and states—"We found him a most affable and well-bred man: in his manners there was an acquired freedom of address, and a friendly ease in his conversation, much of which he owed to his residence in Europe. He lives in a much more splendid style than the vizier,—has chairs for those English gentlemen who visit him, and shows them every attention." With this we must conclude; it having been our object rather to exhibit the deportment of a Persian while in immediate contact with a more refined and civilized condition of society than his own, than to enter into the subsequent details of his private life.

Virtue.—A virtuous man will be virtuous in solitude, and not only in theatre.—Bacon.

Church Nosegays.—The following curious custom exists on the Elbe. The peasantry who possess a bit of land, however small, never enter the church without having a nosegay in their hands. They thus show that they claim the consideration due to persons who possess some property in the parish. Among the country-people in the neighbourhood of Hamburg, there is no garden so small as not to possess a place for the flowers intended for this use, and the plot is distinguished by the name of "the Church-Nosegay."—*Magasin Universel.*

Ancient Church Books.—At the commencement of the fifteenth century, the manuscript books of the church were articles of great rarity and price. As an instance of this we may mention that, when a priest named Henry Beda, in the year 1406, bequeathed his manuscript breviary to the church of Jacques la-Boucherie, he left, at the same time, to William l'Exale, the churchwarden of the said church, the sum of forty sols, to pay the expense of having a cage made in which the breviary might be kept. The pious and learned persons of those times assembled around such books for the purpose of reading their prayers; but that no one might be tempted to take them away, they were attached to a chain which was fastened in the wall.—*Magasin Pittoresque.*

THE CALABASH-TREE.

This tree derives its botanical name (*Crescentia cujete*) from Pietro Crescentio, an Italian writer on agriculture, who lived towards the end of the thirteenth century. Its ordinary name is a corruption of that of *calabaga*, given it by the Spaniards. It is a native of the West Indies and central America, where it grows to the height of about twenty feet, and attains a diameter which has been somewhat indefinitely compared to that of the human body. The trunk is crooked, dividing at the top into numerous, very long, thick, nearly simple, and almost horizontal branches. The leaves are clustered, nine or ten together, at irregular distances, from five to ten inches long; they are about one inch broad, narrowing very

gradually towards the base, and terminating in a long point; and are entire, smooth, and rather shining. The flowers are single, seated on a thick peduncle arising from the larger branches and sometimes from the trunk: they are of a large size, variegated with red and yellow, and altogether have a beautiful appearance, but a very disagreeable smell. The fruit varies in size and figure on different trees; but may be described as round, oval, or bottle-shaped, from two inches to a foot in diameter, covered with a thin greenish-yellow skin, enclosing a thin, hard, and almost woody shell, which contains a pale yellow, soft, juicy pulp of an unpleasant taste, but which, as well as the leaves and the juice, is esteemed a valuable remedy in several external and internal disorders. The pulp contains several flat seeds, which, being brought over in the ripe fruit, and sown in pots of light, fresh, rich earth, plunged in a bark hot-bed and always kept in the stove, will produce the plant in this country; but we cannot learn that in this situation it ever develops its flowers.

The shell, stripped of its external skin and emptied of its juice, is used, according to its size, for various kinds of domestic vessels, such as water-cans, goblets, coffee-cups, spoons, ladles, and even for kettles to boil water in; for the shell is so hard and close grained as to bear the fire several successive times without injury. When intended for ornamental vessels they are sometimes highly polished, and have figures engraved upon them, which are variously tinged with indigo and other colours. "John Rutherford informs us, that the calabash is the only vessel possessed by the New Zealanders for holding any kind of liquid; and adds, that when they drink out of it, they never permit it to touch their lips, but hold their faces up, and pour the liquor into their mouths. After dinner they place themselves for the purpose in a row, when a slave goes from one to another with the calabash, and each holds his hand under his chin as the liquor is poured by the slave into his mouth.*"

* New Zealanders.—'Library of Entertaining Knowledge.'



Calabash-Tree—(*Crescentia cujete*).

The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.
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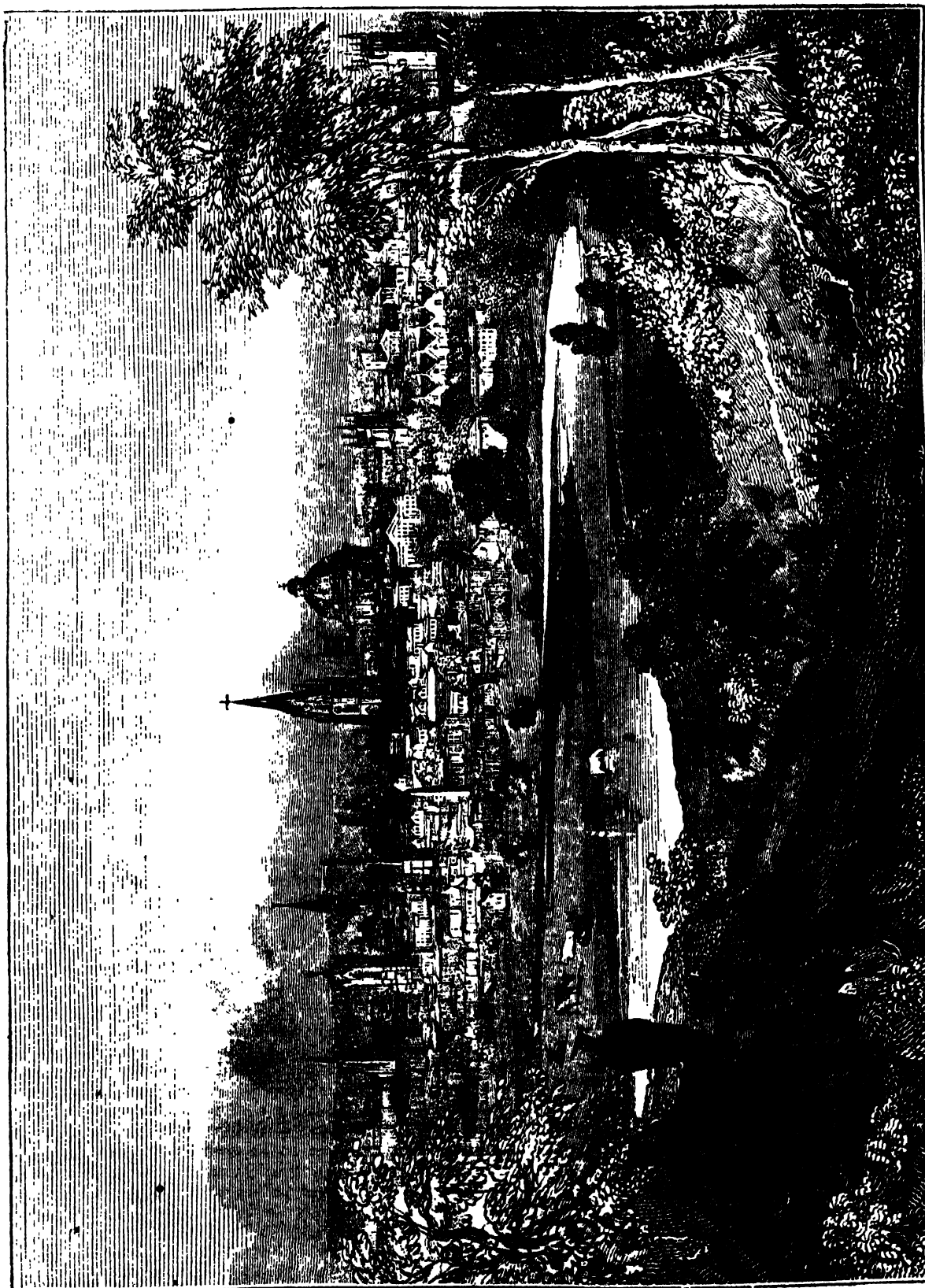
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OXFORD.—No. I.



[Oxford from the Abingdon Road.]

The city of Oxford is the capital of the county to which it gives name, and, as the seat of one of the most celebrated universities of Europe, equalled by few in extent, wealth, and antiquity, claims a relative importance much beyond that to which it would be entitled by the amount of its population. The town is situated in the central part of England, about fifty-four miles N. N. W. of London, and is pleasantly placed upon a gentle eminence in a valley at the confluence of two small rivers, the Isis and Cherwell. These streams, in their circuitous and meandering approach to each other, almost enclose the city, the former on the west and south, and the latter on the east. Along the rivers, and between them and the city, lie rich and verdant meadows, beyond which the prospect is bounded by an amphitheatre of hills, except towards the north, where it extends over a rich champaign country, in the highest state of cultivation.

The origin of the name of Oxford is not at all well determined, although much more has been written on the subject than its importance demanded. The common opinion has been, that it was called by the Saxons "Oxenford," in the same sense as the Greeks did their Bosphori, and the Germans their Ochsenfurt on the Oder, namely, as the *ford for oxen*; hence the arms of the city at present exhibit a sort of rebus on this supposed etymology of its name, in *an ox crossing a ford*. We mention this chiefly for the sake of introducing a just remark of Warton, who observes that the great source of corruption in etymologies of names, both of places and men, consists in the natural propensity to substitute, in the place of one difficult and obscure, a more common and better-known appellation suggested by affinity of sound. Warton himself concurs with Leland in thinking that, by a curious process of corruption which he traces, the name comes from "Ouse-ney-ford," the ford at or near Ouseney, or the meadow of Ouse, Ouse being the general name for river or water. This name passed through a variety of forms, such as Oksnaforda, Oxnaford, and Oxeneford, to Oxenford, of which Oxford is a contraction.

Oxford is a place of very remote antiquity; but the period of its origin is involved in considerable uncertainty, from the difficulty of distinguishing what parts of the information given by the old chroniclers were derived by them from the legitimate sources of history, and what from the legendary tales of the bards. We shall, however, certainly not err in assigning to the latter source the statement which makes the foundation of Oxford nearly coeval with the destruction of Troy. The first certain fact connected with the subject at which we can arrive, even under the Saxons, is, that in the reign of king Alfred, who at one time resided at Oxford with his three sons, the place was noted for a monastery, which was founded in the year 727, and which sober writers, with great appearance of probability, conclude to have formed the nucleus of the town by gathering around it the dwellings of the laity. Since that period the name of Oxford is of very frequent occurrence in history; and it will be proper to notice the prominent facts, without descending to such subordinate details as might be thought interesting in a more extended account than it is our object to supply.

Almost our earliest authentic information of the existence of this town states that it was set on fire twice, and otherwise suffered much from the Danes, in the reign of Ethelred the Unready; we are therefore prepared to learn that when that monarch ordered a general massacre of the Danes throughout his dominions, this order was executed with the most terrible fidelity at Oxford in particular. In revenge for the active part which it took in this transaction, Sweyn again fired the town on his next descent on this coun-

try; and in the year 1013 the place was surrendered to him by order of Ethelred. In subsequent years, Oxford was frequently the residence of the court. Edmund Ironside was murdered there; Canute held there a great council, at which the laws of Edgar were made binding upon all the subjects of the crown,—Danes as well as English; and on the death of that prince a Witenagemote was held there to settle the succession of the crown, and Harold Harefoot, who succeeded, was crowned and died at Oxford. "The town seems to have been much attached to the other Harold, who was killed at Hastings, and was one of those that held out for a time against the Conqueror, who, however, took it by storm, in 1067, and bestowed it upon Robert D'Oyley, one of his officers, in whom he had great confidence. "This Robert," says William of Malmesbury, "made the Castle of Oxford, and, as I conjecture, other [either] made the waulles of Oxford, or repaired them." This castle was in tolerable repair in the early part of the civil war between King Charles and the Parliament, but it afterwards went to decay, and all that now remains is St. George's Tower, of which so much as is habitable is used as the county prison; the keep, in which is a strong vaulted chamber, with a well of great depth, and a crypt, now used as a store-cellar. After the erection of this castle, Oxford became more submissive, and appears to have become quite reconciled to the Norman yoke before the death of the Conqueror. The Empress Maude, daughter of Henry I., during her contest with King Stephen, obtained possession of the castle; but being closely besieged by the latter, she avoided being taken prisoner only by escaping through the postern-gate, dressed in white linen, with four knights similarly disguised. She passed across the Isis, which was frozen, and travelled on foot six miles, through deep snow, to Abingdon, and thence to Wallingford, where she was joyfully welcomed. Her son, Henry II., resided, during the greater part of his reign, at Oxford, in a palace called Beaumont, which had been built by his grandfather; in this palace was born his valiant son, Richard Cœur de Lion, who held a council there before his departure for Palestine. King John spent much of his time in the same palace, and he had a meeting with his barons in the vicinity, about two months before they compelled him to sign the Magna Charta. Henry III. also occasionally resided at Oxford, and several parliaments and councils were held there during his reign; but afterwards the town became less distinguished as the residence of the court and the theatre of political transactions. Edward II. made a present of the palace to the Carmelites, and some remains of it are still extant.

In the reign of Henry VIII. Oxford was the seat of one of the six new bishoprics created by that monarch. In the reign of his daughter Mary, Oxford was chosen for the burning of the bishops Latimer and Ridley, for the alleged crimes of heresy and treason; and, a few months after, Cranmer suffered death at the same place. To Queen Elizabeth the homage of learning was particularly grateful, and she visited the place frequently in order to receive it. Her successor was driven thither, on one occasion, for refuge from the plague in London; but the plague reached Oxford also, and its devastations were so awful, that the scholars hastened from the university, and the citizens shut up their shops. "Not a living creature," says Ayliffe, "besides nurses and corpse-bearers, was to be seen in the streets, which were covered with grass, even in the market-place." During the civil war, in the reign of Charles I., Oxford was the scene of some important transactions. The king, after the battle of Edgehill, in October, 1642, made himself master of the place, which may be said to have remained his head-quarters, until 1646, when, having previously delivered himself up to the Scottish

army, at Newark, he gave orders that the town should be surrendered to the parliamentary forces.

The appearance of Oxford from the high grounds to the east and south-west is highly picturesque and interesting. The view embraces groups of towers, domes, spires, pinnacles, and turrets, intermingled with dark masses of foliage, surrounded by rich meadows, intersected by many streams. The striking effect is not diminished, although varied, on a nearer approach, which affords an opportunity for the number and magnitude of the public buildings, with the splendid details of their architecture, to be more distinctly observed. The town, with its immediate suburbs, comprises an area of about three miles in circumference, extending a mile and a quarter from east to west, and nearly as far from north to south. The city itself is of an oval form, and was formerly surrounded by a wall, with bastions 150 feet distant from each other; but of these works there are very few existing traces. The franchise of the city extends to a considerable distance from the town in the north-westerly direction, and is altogether comprehended within a circumference of about ten miles. The Reform Bill only disturbed the old boundary by extending it eastward so as to include the parish of St. Clement's and part of Cowley parish. The increase of the town beyond the city boundary has chiefly been in this direction, "one cause of which," says the Boundary Report, "is, that shops can be opened here by persons who are not freemen of the city, but who find their habitations sufficiently near to answer their purpose as tradesmen."

The approaches to Oxford from the London road on the east, and from the west, the north, and the south, are all very fine, though dissimilar in effect. The entrances from all these directions, except the north, are over bridges. The eastern or Magdalen Bridge is an elegant stone structure over the Cherwell. It is 526 feet in length, and was built in 1779, at an expense of 8000*l*. The western bridge, over the Isis, consists of three substantial arches. On the south, at Folly Bridge, also over a branch of the Isis, on the Abingdon road, formerly stood a tower called "Friar Bacon's Study;" but this was taken down at the recent erection of a new bridge, which cost 11,000*l*. From Magdalen Bridge the High Street extends, under different names, the whole length of the city. This street is generally allowed to be one of the most striking and beautiful in Europe. On passing the bridge and proceeding up this street, the fronts of many churches, colleges, and other public edifices, in combination with private houses in ancient and modern style, are brought into view in gradual and beautiful succession. The street is wide as well as long; but it has a gentle curvature to which much of its striking effect is owing, for at almost every step the passenger is presented with new objects and fine combinations. At one point, in particular, the whole *coup d'œil* is singularly impressive and picturesque: this is at a broad part of the street near the middle, where Queen's College on the right hand and University College on the left form the fore-ground of the scene, while the front of All Souls, the steeple and rich meadows of St. Mary's Church, the modern spire of All Saints' Church, and the old tower of St. Martin's, constitute the prominent features in the distance, and the whole presents a street-scene unrivalled in beauty, variety, and effect. Some writers consider that the effect of the view which this street affords has been deteriorated by the erection of lofty and elegant modern buildings in the place of many of the humbler remains of ancient Oxford, the Elizabethan inequalities of style in which contributed much, by variety and contrast, to the impressiveness of the scene. After the High Street,

that of St. Giles, which leads from the north of the city to its centre, claims the most attention. It is irregularly built, as it consists almost exclusively of private houses, erected according to the means, the wants, or the taste of the owners. Many of these buildings are large and detached from each other, and the street, as a whole, has a highly pleasing and retired appearance. It is more than 2000 feet in length, and nearly 250 broad, and is planted on each side with a row of stately elms, while, in proceeding up or down the street, the fine vista is arrested either by the church of St. Mary Magdalen, which is placed in the centre of the street's breadth at its southern termination, or by that of St. Giles, which is similarly situated at the northern. The inner streets are rather narrow, and, in many of them, the houses are much crowded together. Speaking of the houses generally, it may be said that those occupied by traders are in general constructed with fragile materials, and frequently built in an irregular and incommodious manner. The houses that were erected as lodgings for the students before residence in the colleges became general, or to accommodate the nobility and gentry during the occasional residence of the court at Oxford, are still numerous, and are generally extensive buildings of stone. The buildings of comparatively recent periods are now numerous, and are usually solid and commodious. We cannot more properly characterise the present state of the city than in the words of the Boundary Report:—"In the city (as viewed apart from the University), new streets, elegant houses,—in rows and detached,—a new suburb, and several hundred smaller tenements, have been erected within the last ten years, and an active building speculation is going on at this present time (November, 1831). As a town, Oxford must be considered very flourishing: its municipal arrangements are excellent;—it is maintained in perfect condition, lighted with gas, well paved and cleansed, and is a place of great thoroughfare: it has also the advantage of canal navigation, by which it is supplied with coal and all the more bulky articles of domestic consumption." Through the means of the Thames and Oxford Canal, the town enjoys a considerable share of commerce, and wharfs and quays have been erected, and other accommodations provided for carrying on the inland trade.

The city of Oxford is divided into thirteen parishes, each of which is provided with its proper church. Of these churches that of St. Peter's in the East is the most ancient. It is said to have been partly built by a St. Grimbald, in the ninth century, and Wood says it was "the first church built of stone that appeared in these parts." It has undergone many changes and alterations; but much of the ancient work still remains in what are called Saxon ornaments, and it has one of the finest and most perfect crypts in England, the arches of which are supported by four ranges of low Saxon columns. This was formerly the university church. The present cathedral was, at its first foundation, the conventual church of a nunnery, and is said to have been founded, in the eighth century, by Didan, a Saxon nobleman, the father of St. Frideswide, the first abbess, to whom the church was dedicated. It afterwards became the chapel of Cardinal Wolsey's College of Christ Church, and it was finally made, by Henry VIII., the cathedral of the new bishopric of Oxford. Dugdale and others assign the foundation of the existing structure to the reign of Henry I.; and it affords examples of the different styles of architecture which prevailed from that period until the commencement of the sixteenth century. It has the form of a cross, with a square tower surmounted by a spire steeple, rising in the centre. The choir is ornamented with a Gothic roof of splendid tracery work; and the dormitory, on the north of the choir, contains several

ancient monuments, the most remarkable of which is a shrine, supposed to be that of St. Frideswide, decorated with tabernacle work, and exhibiting a rich specimen of the latest pointed style. This part also contains the monument of Burton, the author of the 'Anatomy of Melancholy,' who was a member of the college: it bears his bust, with a calculation of his nativity, and a short Latin inscription, written by himself, part of which is "Hic jacet Democritus Junior." There is also a fine statue, executed by Chantrey, of Dr. Cyril Jackson, Dean of Christ Church, who died in 1819. Several other churches, which would be considered interesting and remarkable in any other city, must be passed over in a cursory account of a town in which so many public structures demand notice. At present, we shall briefly notice the buildings which properly belong to the city, reserving an account of those which appertain to the University for a subsequent part of this article.

The Town-hall is an elegant stone structure, with a rustic basement, above which, in the centre, is a handsome pediment. It was erected about the middle of the last century, principally at the expense of Thomas Romney, Esq., formerly high steward, and representative of the city in parliament. The City Bridewell was built in 1789, instead of the old prison called "Bocardo," over one of the city gates, which was taken down in 1771. The spacious and substantial County Gaol occupies a part of the site of the ancient castle. It comprises eleven wards, with other accommodation for the prisoners; and two tread-mills are employed in grinding corn and raising water for the use of the establishment. On the north side of the High Street there is a very commodious Market-place, the entrances to which are secured by iron gates, while the houses in front are fitted up as shops. There is no theatre at Oxford, dramatic representations not being now allowed in the city.

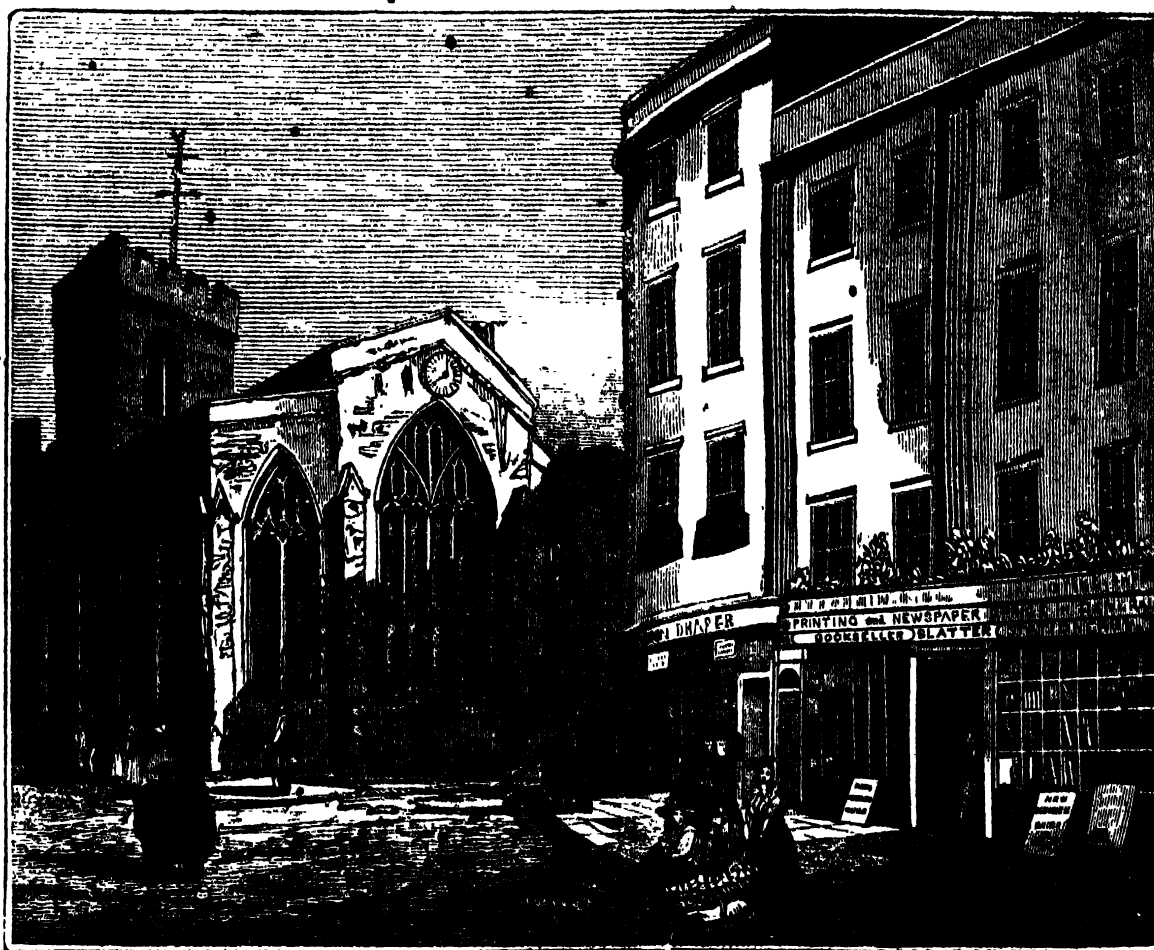
Considered with reference to the elective franchise, Oxford enjoys the privilege of sending four members to parliament; two of them represent the interests of the University, and two are sent by the city, which has possessed the privilege of having representatives in the parliament ever since the reign of Edward I. The right of election was vested in the mayor, corporation, and freemen, until the Reform Bill came into operation. The number of electors was about 2,000, of whom 1739 were polled in four days during the contest of 1830. The number of houses worth 10*l.* a year within the present boundary is 2,369, which therefore affords the number of persons eligible as electors under the altered franchise. In 1831 the total number of houses was 3,936, of which 97 were unoccupied, and 51 new houses were building. The population at the same period amounted, including the inmates of the University, to 22,024, which was an increase, in the city exclusively, of 4,285 persons since the year 1821. As the population returns were made up before the establishment of the present boundaries, the following statements must be understood to apply to the former boundary, which comprised a population of 20,649. Of this number, 10,551 were males, and 10,098 females. The number of males above 20 years of age was 5,791, of whom 117 were employed in agriculture, as occupiers, or labourers; 5 in manufacture; 2583 in retail trade, or in handicraft, as masters or workmen; 1306 were capitalists, bankers, professional and other educated men; 631 labourers, not agricultural; 677 other males, above 20 years of age, except servants; 272 male servants, above 20 years of age, 84 under that age; and 1240 female servants.

THE UNIVERSITY.—The period at which the University of Oxford was really founded, is a question involved in much dispute and controversy, which it would

not be either profitable or interesting to state. What the Trojans, the Britons, the Romans, or the Saxons, may have done at Oxford, it is not now possible to ascertain; and as we know that no establishments resembling what we call universities existed in Europe, until the latter end of the twelfth or beginning of the thirteenth centuries, the whole question amounts to this—at what time schools began to be first established at Oxford? To answer this question properly, it would be necessary to find at what time monastic establishments were first founded there; because there was, in these early times, no education afforded separately from such establishments, and any place which possessed a number of them thus became a seat of such learning as then existed; but it could not claim to be considered as a university more than any other place in which a considerable number of independent schools happened to be situated. We know that Oxford possessed monasteries in the time of Alfred, and as that prince resided much at Oxford, we may safely conclude that he did not fail to exert himself in encouraging the schools in connection with these establishments; and it is probably thus that Alfred acquired the reputation of being the founder, or at least restorer of the university. No doubt the schools at Oxford flourished under the encouragement of following monarchs; but if we are to confine the term university to a corporate establishment, with the privileges of holding property and conferring academic distinctions, the University of Oxford did not exist until long after the Conquest: if, however, the term may be extended to a place in which the principal branches of existing knowledge are taught on an extensive scale, then the University of Oxford may have existed at a much earlier period; although it possessed no greater pre-eminence than naturally arose from the number of its monastic institutions, and the frequent presence of the court. Its schools might thus have been more numerous and better attended than those of many other towns, and they probably acquired some small privileges, which were gradually augmented, until the plan of the modern University was completed.

After the Norman Conquest, Robert D'Oyley, whom we have already mentioned, when he had secured the obedience of the town by erecting the castle, applied himself to the encouragement of learning; he founded near the castle a college of secular canons, the students in which took the title of the Warden and Scholars of St. George within the Castle. Henry I., surnamed Beauclerc, from his love of learning, was educated at Oxford, and during his reign gave much attention to the studies of the place; and is said to have granted to the teachers and scholars some important privileges in their individual capacity. In the following reign the study of civil law was introduced, under the patronage of Theobald, Archbishop of Canterbury; but generally the state of learning was at an exceedingly low ebb about this period, although the number of students who resorted to Oxford increased so much, that the convents were unable to accommodate them, and therefore they lodged in inns or hostels, the number of which is said to have amounted to two hundred. They appear to have resided in these houses under the control of wardens, who preserved order among them, and directed the course of their studies. Richard I. exerted himself considerably in the promotion of education throughout the kingdom, and as Oxford was the place of his birth, it shared largely in his favours: he erected several new schools at his own expense; and early in the following reign Oxford had attained to such a prosperous state, that the number of students amounted to three thousand.

But this flourishing state of things underwent a serious interruption in 1209, when, in consequence of some unhappy disputes between the students and the



[Upper part of High Street, with a view of Carfax Church.]

townsmen, the former not only forsook the place for other seats of learning, but obtained from the Pope an interdict against the town, and against all persons who should settle in it for the purposes of teaching. These measures effectually humbled the inhabitants, who appeared as suppliants before the Pope's legate: absolution was granted them on conditions highly favourable to the scholars, who then returned to Oxford. In the year 1229 a transaction of a very similar description happened at Paris; and when, according to the precedent which had been given a few years before, the teachers and scholars withdrew from the city, the king of England (Henry III.) invited them to settle at Oxford. About a thousand accepted the invitation; and they are said to have introduced a course of conduct and a disposition to interference in political affairs, which reminds one of the "London 'Prentices" of a subsequent period, and the scholars in some of the German universities at the present day. The history of the University is in consequence full of broils, chiefly between the students and townsmen, instances of which it is only necessary to mention when productive of any important result. The reign of Henry III. forms an important era in the annals of Oxford; in its beginning several important privileges had been acquired, and towards its close a taste arose for building and endowing colleges, so that in this reign the establishments now combined under the name of University may be considered to have taken something of the form they at present bear. University College was founded, or, as some say, restored, by William of Durham, Rector of Bishop-Wearmouth, in the year 1232; and it is regarded as the most ancient of the collegiate establishments, although Baliol College appears to have been the first that was regularly endowed, and Merton College the first on which a charter of in-

corporation was bestowed. The ultimate extension of such endowments gradually withdrew the students from that connexion with the town's-people, which had been productive of so many broils between them. Towards the latter end of Henry's reign, the existence of the university was threatened by a violent schism, which divided its members into two factions, that of the north and that of the south, according to the part of England of which they happened to be natives. The more quiet members of both Oxford and Cambridge were tired out by such intestine broils, and in 1260 they seceded from their respective universities, and formed a new seminary at Northampton, by the king's permission; but they were a few years afterwards ordered to break up their establishment and return to the places from which they had withdrawn.

Edward II. granted many additional privileges to the University; but the peace of the institution was grievously disturbed during this reign by the claim of the preaching friars to confer degrees independently of the University; this claim occasioned a violent contest between the parties, which terminated in favour of the University. In the same reign lectures on the Hebrew language were first instituted. The original lecturer, John de Bristol, a converted Jew, was a man of unusual science and erudition for that age, and his lectures were received with much approbation.

Edward III., who had been educated at Oxford, was a great friend to the University. He was very liberal in his grants, and, while he extended the authority of the superior officers, he gave increased consequence and security to the scholars. He took strong measures to root out the animosity between the factions of the north and south: to what extent this was effected we do not know, but the University soon betook itself to the doctrinal question between the "Nominalists" and

"Realists," and warmly embarked in the dispute between the respective champions—Duns Scotus, the "Subtle," and Ockham, the "Invincible Doctor." In this reign (February 10, 1354) 63 students were killed in a quarrel with the townsmen. The mayor of the city and sheriff of the county were prosecuted and fined on account of this riot; and, in commemoration of it, the mayor and 62 of the townsmen were obliged to attend at St. Mary's Church on every anniversary of the day, and, after prayers, to pay each a silver penny to the proctors of the University at the altar. This custom was kept up until 1825, when the claim was relinquished. In the following reign (Richard II.) Dr. John Wickliffe, the warden of Canterbury College, read at Oxford his lectures on divinity, which occasioned a strong sensation at the time, and afterwards produced very important results. During the thirteenth and fourteenth centuries, seven endowed colleges were founded at Oxford, besides which there were more than 200 private halls, or hostleries, for the students. Nevertheless, at the latter end of this period, and subsequently, the number of students greatly declined, and many of these buildings were let for purposes very different from their original destination. Under the reigns of the York dynasty the University underwent a partial revival of prosperity, although it did not perfectly recover until the entire cessation of intestine and foreign war under the pacific reign of Henry VII. In that reign Erasmus repaired to Oxford for the purpose of teaching the Greek language, and had to encounter many and strong prejudices, which existed against the study in the minds of the great body of the scholars and of several leading men in the University. The former associated themselves, under the name of "Trojans," against the new knowledge and its teacher; and the latter delivered lectures in the schools against Erasmus and his Greek. The University prospered greatly in the reign of Henry VIII. In the early part of the reign, Cardinal Wolsey proved himself a most munificent patron of the University, and of learning in general. He founded seven lectures for theology, civil law, physic, philosophy, mathematics, Greek, and rhetoric, and appointed as lecturers, men of high distinction in these several branches of learning. The opposition to Greek was subdued chiefly through his exertions, and he in some measure succeeded in introducing a taste for better and more profitable things than those which had, in former times, passed under the name of learning. Concerning his foundation of Christ-Church College we shall have another occasion to speak. The University seems to have seasonably conciliated the favour of Henry VIII., who had, in a way, a taste for learning, by pronouncing an opinion favourable to his divorce from Catherine of Arragon, and to his assumption of the supremacy in the church; but the acquiescence of the University in the views of the king terminated, when it was perceived that he designed to use his supremacy for purposes which had not been originally foreseen.

Oxford suffered much, as a seat of learning, in the conflict of opinions and the alternate ascendancy of opposite parties, which continued until the Protestant domination became firmly established under Elizabeth. In the reign of that princess, the obligation, on all who purposed to enter into holy orders, of subscribing to the articles of the Established Church was rigidly enforced; and as many persons at the University were friendly to the puritanical doctrines, this circumstance formed the principal source of disturbance to the quiet of Oxford at that period. In the reign of James I. the University first acquired the privilege of sending two members to parliament; the doctrinal disputes of the former reign were continued, and operated injuriously on the interests of actual learning. In the next reign Archbishop

Laud, who was Chancellor of the University, procured for it, from the king, a new charter, by which its former privileges were explained and confirmed, and new ones added; and the statutes of the University, after having been revised and enlarged under the authority of the heads of colleges, received the royal sanction. These and other favours Oxford subsequently repaid by the most devoted and attached loyalty to the king during the civil war, and by great but useless sacrifices in his cause. In consequence of this, many of the heads of houses and professors were expelled by the commissioners afterwards appointed by parliament "to reform the discipline and correct the doctrines" of the University, and Presbyterians and Independents were appointed in their places. On the restoration of Charles II., the intruders were, in their turn, compelled to give place to those whom they had superseded, or to others of similar principles. The principal event in the history of Oxford, during the reign of James II., was its steady resistance to an attempted infraction of its privileges. The presidency of Magdalen College becoming vacant soon after this prince ascended the throne, he sent to the Fellows an order directing them to elect one Farmer, a Roman Catholic, of low character. The Fellows, however, neglected the mandate, and elected Dr. Hough for president; and as they persisted in supporting the object of their choice, even when the king had changed his nomination in favour of Parker, the Bishop of Oxford, James proceeded thither in person, and finding that even his presence could not influence the decision of the refractory Fellows, he expelled the whole of them, except two, from the College. This measure produced a strong sensation in the country; and when afterwards the king became alarmed by the preparations of the Prince of Orange, one of the first measures he took, in the vain hope of recovering the confidence of his Protestant subjects, was to reinstate the expelled Fellows of Magdalen. Since the Revolution no circumstance of much interest has occurred in the history of the University of Oxford. It has gone on increasing in wealth and prosperity to the present day; and if it be true that it has retained traces of its origin "in a dark age of false and barbarous science," and has long persisted in giving primary importance to obsolete and useless studies, to the comparative exclusion of those which the improved state of science has rendered necessary, and which the circumstances and prospects of the age have imperatively demanded, it is also true that the system of education at Oxford has undergone such important modifications, that although the institution cannot be said to take that important part which it might in preceding, leading, and directing the spirit of the age, neither can it now be characterized as peculiarly the stronghold of exploded prejudices and the superstitions of ancient learning.

It now remains to mention the principal public buildings belonging to the University, as distinguished from those which are the property of particular colleges.

Schools.—Public schools were first erected about the commencement of the fifteenth century, by Thomas Hokenorton, abbot of Ouseney, and consisted of ten apartments allotted to different branches of education. To these a divinity school was added in the year 1427, chiefly through the liberality of Humphrey, Duke of Gloucester. The latter still remains, and affords a curious specimen of architecture; but all the others were demolished in the beginning of the seventeenth century, when the present schools were erected, which, with the Bodleian Library, form a quadrangle of about 170 feet in length. Over the gateway there is a lofty tower, fantastically arranged in compartments, exhibiting an imitation of the five orders of classic architecture. At the upper part of this tower there is a

stone statue of James I. in a sitting posture, presenting a copy of his own works to Fame with his right hand, and delivering another copy to the University of Oxford with his left. The whole quadrangle is now three stories high, two of which are used as "schools," in which the public professors read their lectures in the different sciences, and in which the candidates for degrees undergo their examination. The moral philosophy lecture-room contains a collection of statues, busts, and marbles, the gift of the Countess of Pomfret; and in an apartment on the north side of the schools are arranged the Arundelian marbles, together with many other monuments of Grecian antiquity collected by Selden, Wheeler, and others, and presented or bequeathed to the University.

The Bodleian Library.—This library was founded by Sir Thomas Bodley, at the close of the sixteenth century, on the remains of one established by Humphrey, Duke of Gloucester, which had been divested of all its valuable books and illuminated MSS. by the commissioners of Edward VI. The library originally consisted of three extensive rooms united, forming the figure of a Roman II. To these several other rooms have been added: the first contains the valuable collection of topographical books and manuscripts bequeathed to the University, in 1799, by Mr. Gough; another is appropriated to foreign, and a third to domestic periodical literature. Below the library there is also an apartment, called the *Auctarium*, for the reception of the choicest manuscripts, early-printed books, &c. In an adjoining room there is a fine collection of Oriental manuscripts, and beyond this are deposited the miscellaneous manuscripts of Archbishop Laud and other benefactors. This library contains perhaps the most valuable collection of books and manuscripts in Europe, as the donations in aid of Sir Thomas Bodley's contribution have been exceedingly liberal; it besides receives continual increase by donations, by copies of every work printed in this country, as well as by books purchased from the fund left by the founder, assisted by fees received at matriculations, and by an annual payment from all persons who have the right of admission to the library. This library is governed by regulations drawn up by Sir Thomas himself, who, besides his books, left an estate to the University, to provide suitable salaries for the officers and for the repair of the buildings. All the members of the University who have taken a degree are admitted to study in the library; but no books are allowed to be taken from it.

The Theatre.—This fine edifice, in which the principal public meetings of the University are held, was built at the charge of Archbishop Selden, who besides left a fund of 2000*l.* to keep it in repair. It was designed and completed in five years by one of the professors, Sir Christopher Wren, who, "from being the most profound mathematician of his age, became its first architect;" and who, in the plan and execution of this structure, gave evidence of those talents, in the latter capacity, which afterwards found such ample scope in the metropolis. The ground-plan of this theatre is taken from that of Marcellus at Rome; and, by an ingenious disposition of its parts, the architect has contrived to render it capable of containing nearly 4000 persons, although its dimensions, 50 feet by 70, seem altogether inadequate for such a number. The roof rests entirely upon the side walls, without any central support. In consequence of the roof being in danger of falling, a new one was substituted in 1802. In imitation of the ancient theatres, the walls of which were too far apart to admit of a roof, the ceiling has the appearance of a painted canvass strained over gilt cordage. The exterior elevation, on the side opposite the Divinity School, is adorned with columns of the Corinthian

order, and statues, in niches, of the founder and the Duke of Ormoud.

Clarendon Printing-house.—This building was erected in 1711, with the profits arising from the sale of the Earl of Clarendon's 'History of the Rebellion,' the copyright of which was presented to the University by his Lordship's son. Vanbrugh was the architect, and the style is massive, as in all his works. The structure is two stories high, with a Doric portico in front, and a statue of the noble author over the front entrance. Besides the offices required for printing, there is a handsome apartment where the Heads of Colleges and the "Delegates of the Press" hold their meetings. The printing business of the University was, before the erection of this building, carried on in a large room at the top of the theatre, the under part of which is still used as a warehouse for books printed at the Clarendon Press. A new University printing-office has, within these few years, been built at the back of the Observatory. It is a fine building of the Corinthian order, the press-room in which, on the ground floor, is the largest in the kingdom, it being 200 feet long and 28 wide.

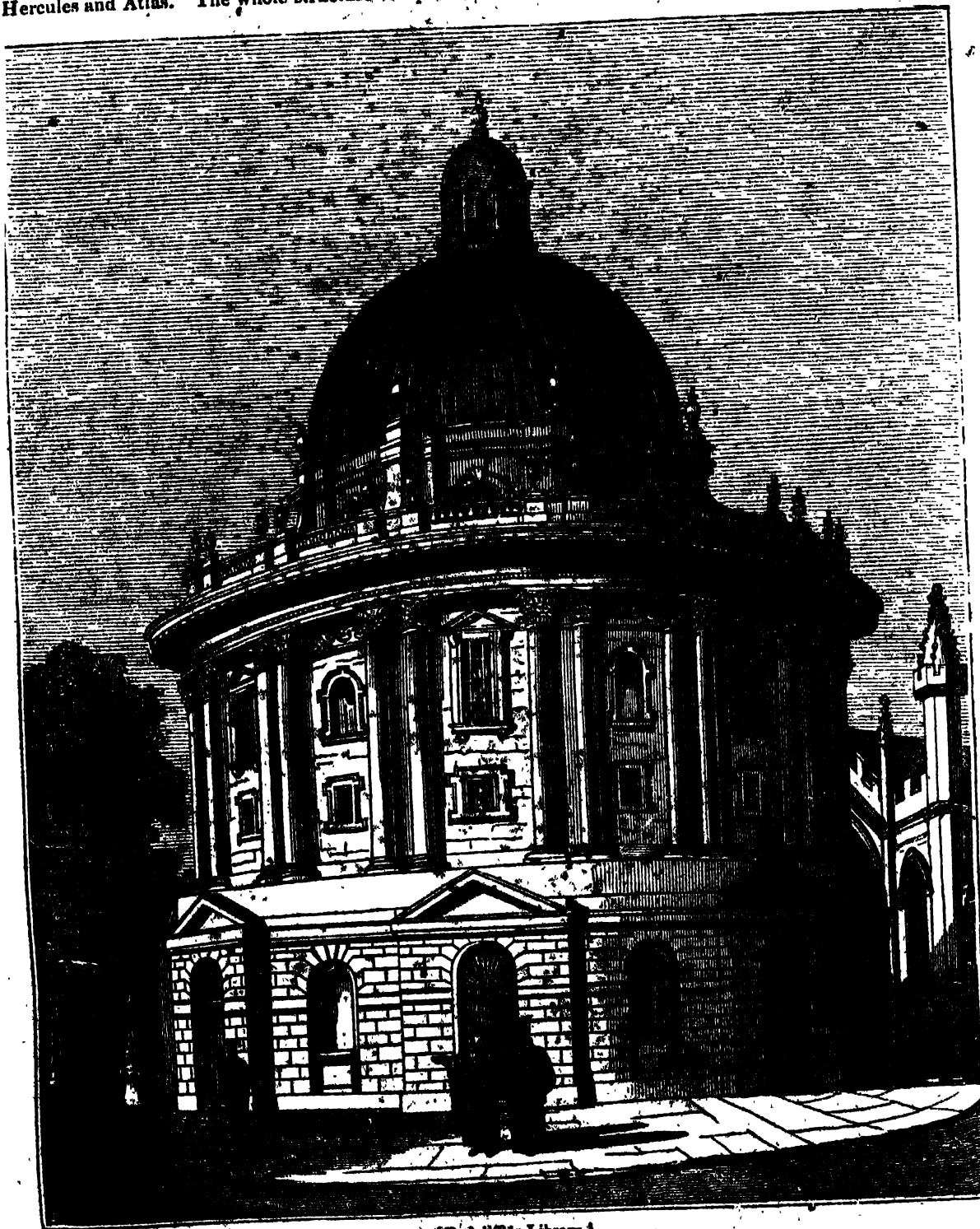
Radcliffe Library.—This structure, of which our wood cut affords a representation, is one of the most imposing architectural ornaments of Oxford. It was founded by Dr. Radcliffe, a distinguished physician of the reigns of King William and Queen Anne, who bequeathed 40,000*l.* for the erection of the building, 100*l.* per annum for the purchase of books, and 150*l.* per annum for the librarian. The building was designed and executed, between the years 1737 and 1749, by Gibbs of Aberdeen; and some of the best artists of the time were employed on its interior embellishments. On the exterior, a rustic basement, in the form of a double octagon, supports a cylindrical structure, adorned with three-quarter Corinthian columns, between which are windows and niches alternately. A balustrade surmounts the entablature, and the whole elevation is terminated by a fine cupola, which renders the building a striking object in every distant view of the city. The contributions to this library are few in comparison with those to the Bodleian, which seems to have wholly engrossed the munificence of the learned; and the trustees have lately determined to appropriate the library to the reception of books in natural history and medicine.

Ashmolean Museum.—This was the first public institution in England for the reception of rarities in nature and art; and, in the infancy of the study of natural history in this country, it possessed what was then considered a valuable and superior collection. It owes its foundation to Elias Ashmole, who offered to bestow on the University all the collections in natural history which had been bequeathed to him by the Tradescants, the eminent botanists and gardeners at Lambeth, and to add to these his own coins, manuscripts, and books, provided the University would defray the expense of erecting a proper building for their reception. The offer was accepted, and the present edifice raised under the direction of Sir Christopher Wren. It is admired for its just architectural proportions, although the situation is unfavourable, and the portico is nearly obscured in the narrow passage between it and the theatre. The contributors to this museum have been numerous; but in the course of a century the apartment had become much dilapidated, and the collections had sustained great injury and decay, when the interest excited by Paley's work on Natural Theology, and by the physiological lectures of Professors Kidd and Buckland, induced the trustees to exert themselves in putting both the building and the collections into a greatly improved condition.

The Observatory.—This useful and elegant building

was erected at the expense of 30,000*l.*, defrayed by the trustees of Dr. Radcliffe. It is situated at the extreme end of the northern suburb of the city, on a very appropriate site, with attached grounds, which were presented to the University by the Duke of Marlborough. The central elevation of the edifice is upwards of 100 feet, and its third story consists of an octangular tower, which affords a general representation of the Temple of the Winds at Athens, with sculptured representations of the eight winds on the entablature, and a ponderous earth-coloured globe at the top, supported by figures of Hercules and Atlas. The whole structure comprises

a dwelling-house for the Observer, apartments for observation, for an Assistant Observer, and for lectures, and is supplied with a valuable set of astronomical instruments, besides a library. The building was completed in 1786 by Mr. Wyatt. Astronomical observations are daily made at this Observatory when the weather permits; and a fair and full copy of the registers is annually deposited in the library of the Royal Society in London, in the Radcliffe Library, and in the Observatory itself, in order that they may be accessible to men of science for improving the theory of astronomy.



[Radcliffe's Library.]

THE PENNY MAGAZINE

OF THE

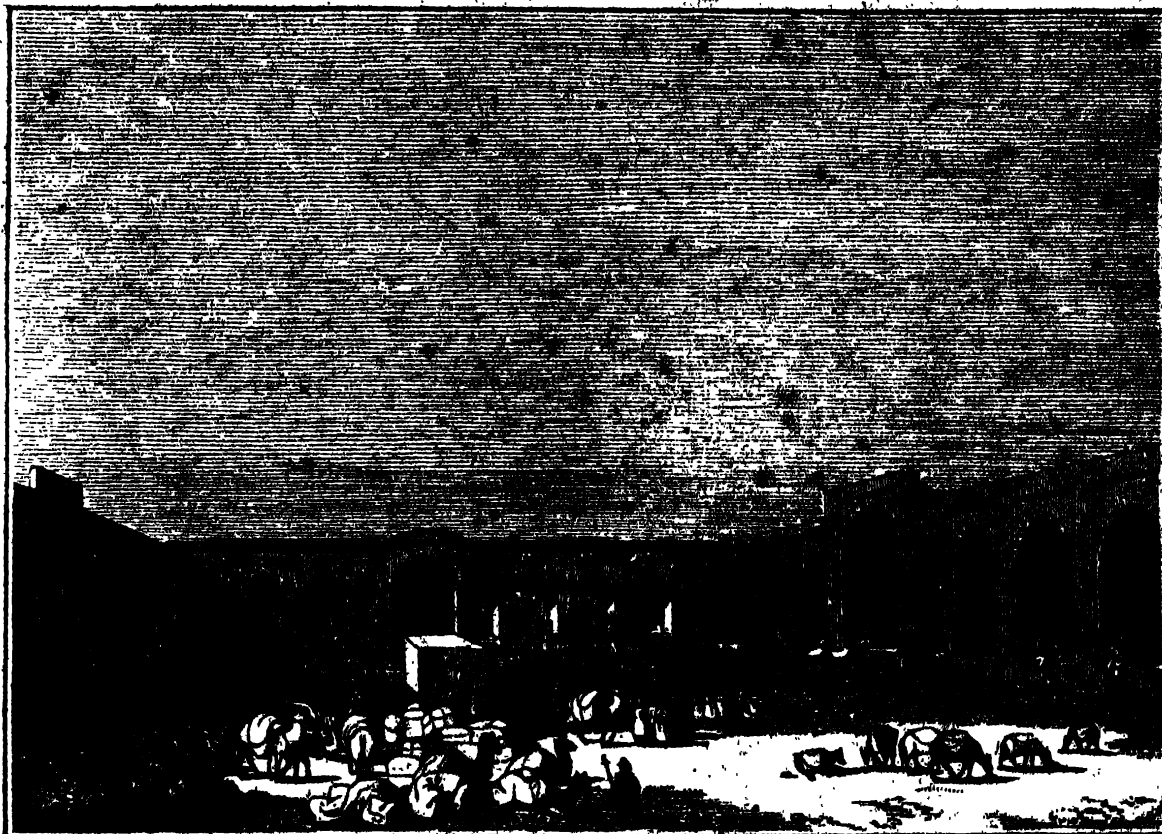
Society for the Diffusion of Useful Knowledge.

[66.]

PUBLISHED EVERY SATURDAY.

[NOVEMBER 1, 1884.]

CARAVANSERAYS.



[Caravanseray.]

Among a rude people whose country is rarely visited by strangers, any one who arrives is cheerfully received into the tent or the hut of some principal man; and the best fare that the place can afford is set before him without charge. The rude or savage men sometimes even contend among themselves for the honour of entertaining the stranger. In a state of more advanced civilization and increased intercourse, so many sanctities come to be assembled around private life that the intrusion of a perfect stranger is felt unpleasant, and therefore a separate house is appropriated to the reception of travellers, where every attention is paid them, and they are amply supplied with provisions. In the next stage, hospitality provides only for the stranger what he cannot provide for himself,—shelter; and, in the last stage of all, in which occasion for travel is diminished to the poor and increased to the rich, the traveller is altogether left to the care of persons who make it a profession to afford him every kind of accommodation. Some persons look upon this last state of things as illustrating

“The cold charity of man to man.”

In a highly civilized state of life. We, however, are quite satisfied that the actual amount of human sympathies is greatest in the state of society that is the most highly civilized; although sympathy and charity cannot always be exhibited in the same forms as in a rude state of life, without disturbing the working of the delicate and complicated machinery in the midst of

VOL. III.

which the civilized man lives, and of which himself, his life, and his labours form a part. We proceed to describe the system of providing for travellers shelter, but no food, as exhibited in Persia.

The places of accommodation for travellers are properly three:—caravanserays, khans, and menzils. The first are buildings designed to afford shelter to travellers in deserts and other situations remote from towns; khans* are similar buildings in a town; and menzil is a word of rather indefinite application, but seems generally to denote the house of the persons who are accustomed to accommodate travellers in places where there is no khan or caravanseray. The difference between the two latter is not much attended to in common conversation; nevertheless, the terms are not so much confounded as might be supposed from the statement made by travellers,—that the public buildings devoted to their accommodation are usually called “khans” in Turkey and “caravanserays” in Persia. The reason is, that in Turkey there are, in fact, very few proper caravanserays,—that is, such buildings at a distance from towns,—while they abound in Persia.

In that country there are few public buildings comparable to the caravanserays, for the mosques are in general buildings of no external beauty; while in Turkey, where the mosques are often handsome structures, the buildings destined to accommodate travellers are ex-

* The word “khan,” as applied to an inn, is a contraction of the word *khana*, a house.

mean. In our present paper we confine ourselves exclusively to caravanserays.

In Persia they are all constructed on essentially the same model, but they nevertheless differ greatly; and this difference is found not only in the materials and workmanship of the building, but in the absence of different parts possessed by the complete caravanserays. Our best course will be, first, to describe a perfect structure, and then to mention what parts are sometimes omitted.

The superior class of caravanserays appear very striking objects to the stranger who approaches them, whether seen in their own solitary magnificence, or in contrast with the miserable hovels which sometimes appear in their neighbourhood. An European who has had no previous acquaintance with them is certain to take them for palaces, fortresses, or castles; but this first impression becomes fainter when a more deliberate observation shows that no enclosed buildings rise above the level of the enclosing wall. This wall is very high, in general upwards of twenty feet, and it sometimes extends one hundred yards on each side of the square which it encloses. It is strongly built of fine brick-work, which is commonly based on stone, and is usually worked off at the upper part with ornamental brick-masonry. The front is often very striking, particularly when the uniformity of the wall is broken not only by the grand entrance, but by niches about four feet from the ground, which are seen in some of the best caravanserays. In the centre of the front wall appears the entrance, a tall and spacious archway, over which are sometimes chambers crowned with superb domes. Much pains have generally been taken with the open brick-work and mosaic of this part of the structure, which altogether forms a very fine and suitable portal to the caravanseray. On each side, under the extensively-arched roof of the portico, are rooms which are usually occupied by the keeper and his people; and some of them are used as shops, in which are exposed for sale such commodities as travellers most require. On passing through this archway, the spectator perceives a sort of piazza extending on every side of the interior of the quadrangle, leaving a spacious area in the middle. On a nearer approach, it appears that each of the high arched recesses separated by piers is an apartment, the floor of which is elevated three or four feet above the ground, and divided from the adjoining apartments by walls, the ends of which form what appear like the piers of a piazza. These apartments, which are open in front, are neatly paved, and sometimes possess a fireplace, while compartments cut out in the depth of the thick wall are serviceable as cupboards. A small door conducts to another more private room behind this. It is commonly of an oblong shape, with the chimney on the side opposite the door, at which the only light enters that the room receives. Along the walls, about three feet from the floor, there runs a line of such "cupboards," or cupboards, as we have just mentioned, and which are considered indispensable in all Persian apartments, but vary in depth from three inches to a foot. The inner apartment is seldom resorted to, not even for sleeping, except in winter or in bad weather, or by women, the outermost being considered the summer room, and an inhabitant of the East does not covet privacy for the purposes of sleep, eating, or devotion. In the middle of each of the three sides of the building, besides that in which is the entrance, or at least of the side immediately opposite the entrance, there is an apartment much more spacious and lofty than any other, in its actual structure, and appearing more so than it is from not being divided into two rooms, as in the case of the common apartments. These large open chambers seem to have no special use. They are sometimes occupied by families, and sometimes they are merely

used as places to which the different inmates of the building resort to smoke their pipes together—to converse, or to listen to tales. They seem to have been framed with the intention of rendering the other sides of the building uniform—in the interior view—with that which affords the entrance.

The vaulted chambers over the gateway, which are found in the oldest and best caravanserays, form the place of honour in such buildings. They are usually occupied by the persons of most note, particularly if females are with them: but it sometimes happens that this portion of the building is set apart for the purposes of an oratory. These chambers are more free from intrusions, more airy, light, and clean than the recesses below, which are not unfrequently rendered unpleasant by dirt and vermin.

The stables of the caravanseray extend along a covered lane, which is between the back wall of the apartments and the outermost wall of the building; and along this wall there extends, within the stable, another series of cell-like apartments, destined for the accommodation of muleteers, servants, and the poor people who, having no servants to attend to their cattle, perform that duty for themselves. However, the Persians and their cattle appear to concur in giving a decided preference to the spacious central court-yard, which is therefore used as a stable when the weather is not unfavourable.

In the centre of the court appears an elevated platform of masonry, which forms the roof of a subterraneous chamber called a "*zeera zamoun*," to which travellers retire during the great mid-day heats of summer, and which is then indeed a most refreshing retreat. Sometimes, however, the place of this platform is occupied by the circular or square parapet of the deep well or reservoir from which the caravanseray is supplied with water, the only accommodation, besides lodging, which such establishments provide, and which is sometimes provided at a great expense in situations where water is difficult to procure.

At the angles of the square there are flights of steps which conduct to the flat roof of the building, to which travellers like to resort in the cool of the evening; and very generally indeed, unless they have any valuable property in the chambers below, they remove their beds to the roof, and spend the night there.

We are not aware that any part of a complete caravanseray has escaped our notice, but must now state that such completeness is frequently wanting. Some caravanserays are destitute of the stables, and in others the apartments do not extend on all sides of the square. Many are without the domed chambers, or any chambers, over the gateway; many are without the "*zeera zamoun*," and in some the arcaded appearance of the interior is wanting;—a range of single chambers, such as are the inner chambers in the complete building, being merely fronted by an unbroken bench of masonry or earth.

All these buildings afford no other accommodation than the bare walls, and it is sometimes impossible to obtain food at any price in the neighbourhood, the eastern traveller is obliged to encumber himself with bedding, culinary utensils, and some articles of provision. The fire has even known wood for fuel bought at one stage to be used at the two or three following, where it was well known that none could be obtained. For the accommodation actually afforded no price is properly payable, and although a small gratuity seems to be sometimes expected from the better sort of travellers, it is understood not to be for the accommodation, but for attention and services rendered by the persons in charge of the building. It may be that, in solitary situations, where they have no straly to apprehend, the people of the caravanserays may make a good profit by the sale of provisions; but that this is generally the

case, in such as the royal foundations, as some travellers allege, the writer is much inclined to doubt; for he never met with an instance in which the people of any village which might be in the neighbourhood were prevented from coming to hawk their goods about the caravanseray, and never observed that the traveller himself was ever hindered from going to make his market where he liked.

Caravanserais are doubtless of very ancient origin. Sir Robert Ker Porter quotes Xenophon as informing us that Cyrus was the first institutor of these resting-places. "For, observing how far a horse could well travel in a day, he built stables at those distances, and supplied them with persons to keep them in charge." A very large number of those now existing would appear to have been built by the great Shah Abbas; but it is so customary for Persians to refer to him as the founder of every structure for the public benefit concerning which they have no positive knowledge, that many more are attributed to him than he really erected. Many of the caravanserais are of royal origin; but we believe that in Persia the largest proportion have been built by wealthy individuals, either to perpetuate their names, or as acts of charity acceptable to God, and which will be abundantly recompensed in another state of existence. They are either built in such a manner as to be supposed to need no repair, or there are lands, or shops, or houses, assigned by the builder for the purpose, or it is left to the public spirit or charity of others to make the repairs. In general, however, unless the founder has provided for their being kept in a state of repair, they are allowed to fall into decay; because such persons as can afford it prefer to glorify their own names by building a new caravanseray, rather than to benefit the public by repairing several old ones. However, when strongly built, they long remain without visible decay; and under the pure and dry atmosphere of Persia retain for centuries the freshness of new buildings.

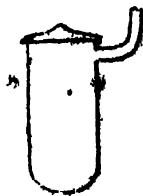
GAS.—No. II.

(Continued from No. 159.)

MANUFACTURE OF GAS.

Most persons have seen the experiment of making gas in a tobacco-pipe, by filling the bowl with coal, stopping it with a bit of clay, and putting it into the fire: in a few moments a smoke will be seen to come out of the end of the pipe, which, if a candle be applied, will take fire, and continue to burn for some minutes. This smoke is gas, and an extension of the process constitutes a gas apparatus. Instead of the pipe-bowl an iron retort is used, and an iron tube leading from it represents the stem of the tobacco-pipe.

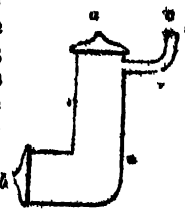
The first retort used by Mr. Murdoch was, in shape, not much unlike the bowl of the tobacco-pipe; it was cylindrical, and placed in an upright position, with a pipe leading from it



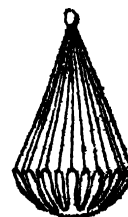
to carry off the gas when formed. It held about fifteen pounds of coal, which was put in at the top; the cover was then fastened down, and the gas driven out through the small pipe at the side. But when the gas is made, there remains a large mass of coke in the cylinder, of greater bulk than the coal first put in, which must be removed before more gas can be obtained. The getting out of this coke was found to be a very troublesome operation with the retort upright. Mr. Murdoch in consequence employed the same retorts placed horizontally, or lying down on their sides; in this position it was easy to rake out the coke, though some difficulty was found in putting in the coal, which was afterwards obviated by using a long semi-

cylindrical shovel. The horizontal retort succeeded perfectly; many contrivances have since been adopted, but none have been found to succeed so well, though the cylindrical form has been somewhat modified.

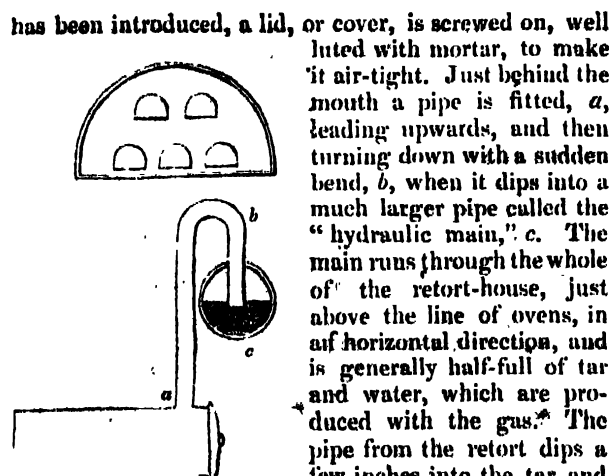
About 1804, an attempt was made to produce a retort that should be filled and emptied with equal ease; the form shown in the figure was used, as being well adapted for the purpose: the coal was put in at the top, *a*, the gas escaped through the pipe, *c*, and the coke was raked out at *b*. The object was answered; but the stopping of retorts is always a troublesome operation, from the necessity of keeping the cover airtight, and, with all the care employed, gas will occasionally escape. In these retorts the inconvenience was doubled, and the plan was in consequence abandoned.



So great, however, was the convenience of the upright position for putting in the coal, that a cylinder was erected in this way at the establishment of Mr. Lee of Manchester, mentioned in a former Number, page 374: this cylinder was of greater size than any before used, holding fifteen hundred-weight of coals; and, to get over the difficulty of extracting the coke, an instrument called a grappler was used, consisting of a basket or grating of iron fitting into the bottom of the retort, in which it was placed previous to putting in the coal: the grating was suspended by iron chains, and drawn out with the coke by means of a crane as soon as the distillation is completed. This retort produced from 330 to 360 feet of gas for every hundred-weight of coal employed: the production was rapid at first, but towards the end of the operation it proceeded very slowly, because the coal first acted upon by the fire soon became coke, and formed a solid crust around the remaining coal, protecting it from the action of the fire, and checking its decomposition. A great heat and consequent consumption of fuel was therefore necessary to extract all the gas contained in coal by this large retort: and as it was ascertained by many experiments that where the production of gas was rapid its quality was better, and the quantity from the same measure of coal greater than when obtained slowly, it became evident that the preferable mode was to have the retort as small as convenient; but as a limit on this side was necessary, in consequence of the expense of frequently filling and emptying when very small, it was found, upon the whole, most convenient to use none smaller than sufficient to hold two bushels of coal. In order to have the coal as quickly acted upon as practicable, other forms were introduced; the circular cylinder was flattened to an oval, *a*, made square, *b*, flattened at the bottom, *c*, or doubly curved, *d*, as shown in the sections here given. In all these retorts the coal lies less in a mass than in the circular form, and is therefore more rapidly decomposed. The third form, called the "D-shaped retort," is now very generally used, though the cylinder still keeps its place in many establishments. A considerable practical advantage has resulted from the employment of these flattened retorts,—to such an extent that a hundred-weight of coal is found to produce only 370 feet of gas in a perfect cylinder, while in the D-shaped or oval forms from 450 to 500 feet may be obtained from an equal quantity.



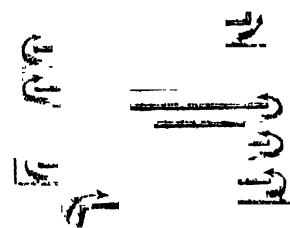
Whatever retorts are used, they are placed horizontally in ovens, in groups of three, five, or seven in each oven, according to the magnitude of the works. The mouth of each retort stands out of the oven, and, when the coal



water, and its mouth is thus closed against the return of gas, which might otherwise take place when the supply grew slack and the retort cool. The fuel used in heating the retorts is principally the coke, produced in gas-making. The tar also is sometimes mixed with ashes, and burned as fuel.

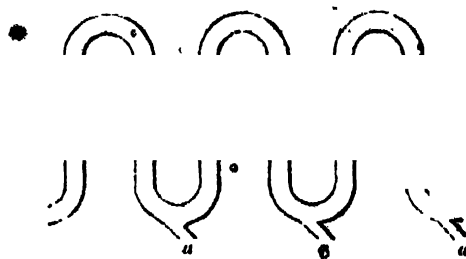
In the engraving in the next page, which is a section of one of the principal establishments in London, showing the internal arrangements in their most complete state, the retorts are placed in groups of five in each oven. A pipe is seen leading from each retort to some height above the hydraulic main, which is the great tube running across the whole of the retort-house, only half of which is shown in the engraving. The works being viewed in front, the dip of the pipe into the main cannot be seen.

But the gas produced by the tobacco-pipe or by the retorts is far from being the fine and invisible air used in lighting the shops and streets of London: it is a thick, oily smoke, of disagreeable smell, which requires much purification before it is fit for use. Oil, water, tar, and various gases are produced with coal-gas, and must be separated. In the early days of gas-making it was found an easy matter to get rid of the water, oil, and tar. Nothing more was necessary than to pass the gas through water, and to allow it a sufficient time to repose, when all these impurities would be deposited of themselves. This part of the

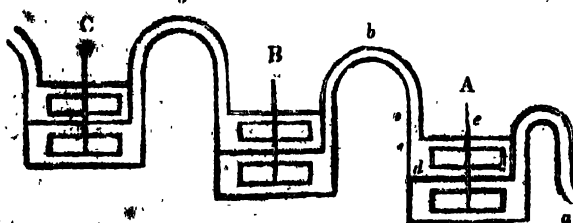


operation was performed in the early apparatus by admitting the gas into a square vessel, or cistern, filled with water and divided with shelves, as in this figure. The gas entered the cistern at the pipe marked a, and was compelled by the shelves or partitions to traverse the water several times in the direction represented by the arrows, in which course it was well washed; the cleansed gas came out at the pipe b, and the accumulated impurities, which were deposited at the bottom of the vessel, were drawn off at the stop-cock c.

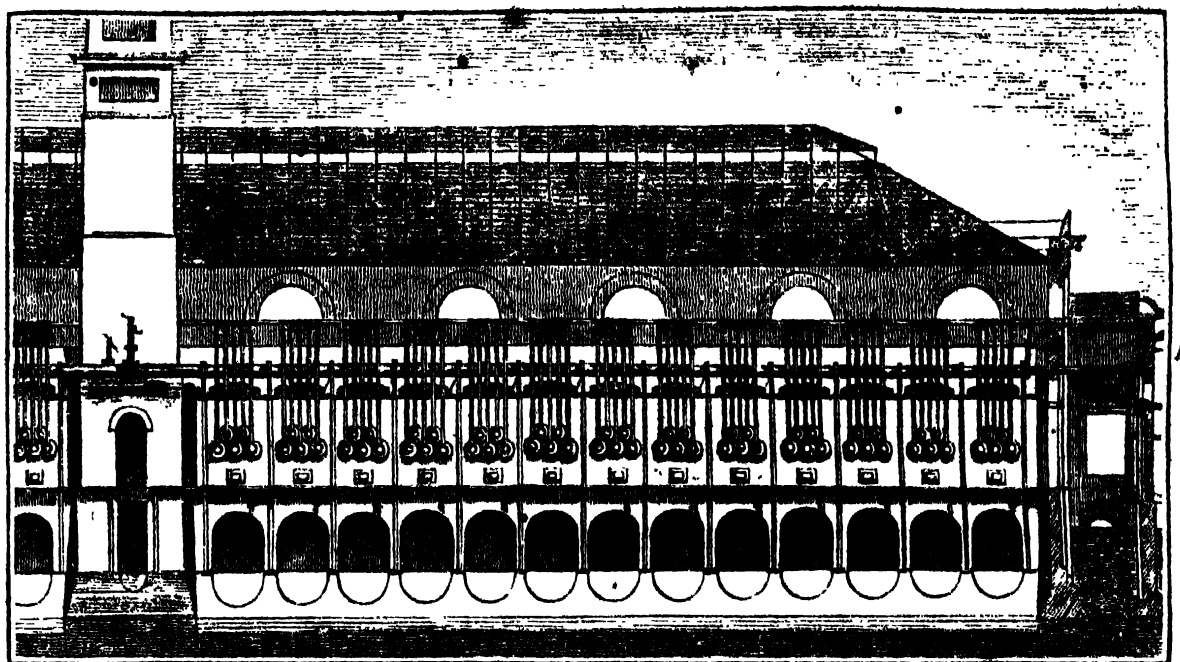
This part of the apparatus was called the "condenser," because the gas, which entered it in a heated and rarefied state as it left the retorts, was rendered cool and dense as it passed through. The condenser now usually consists of a succession of iron tubes, bent as in the figure, through which the gas passes as it leaves the hydraulic main. At each lower bend a pipe, or syphon, a, a, a, is fixed, through which the deposited tar, &c., is drawn off; and sometimes the condenser is surrounded with cold water, to cause a more rapid deposition.



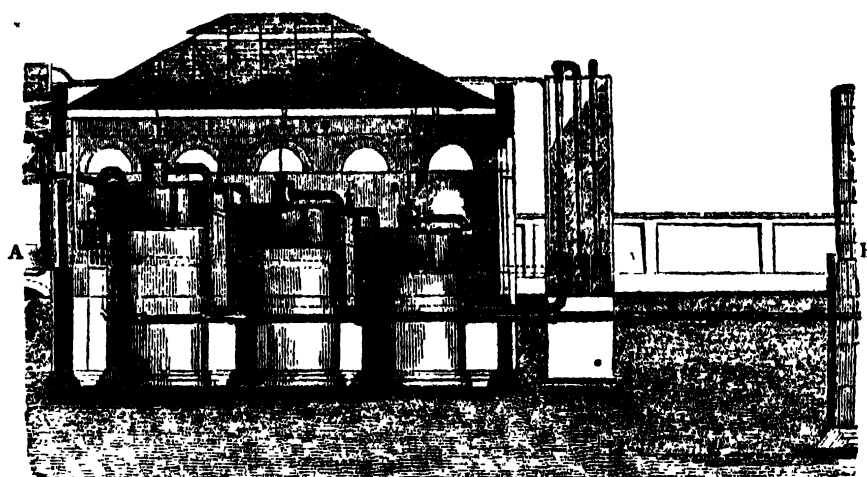
But the mixture of the various gases which render coal-gas impure was, for a long time, a cause of considerable embarrassment, because they did not form a visible impurity, like the oil and tar, and were more intimately mixed up with the coal-gas than either of those substances. They were at the same time more detrimental to the use of gas than either oil or tar; for by their admixture, not only was the gas rendered less capable of affording light, but one of those gases, and that which is produced in the greatest quantity, was the cause of a very nauseous smell, and at the same time so detrimental to health, that a mixture of one tenth part in the air we breathe is said to be sufficient to cause death: in very small proportions it produces intolerable head-ache. This was the sulphuretted hydrogen, a chemical compound of hydrogen (which is a principal constituent of water) and sulphur, or brimstone. This gas is produced from the sulphureous substances contained more or less in all coal, the chief of which is the pyrites, or yellow leaves, often found interspersed in coal, and mistaken by the ignorant for gold: the sulphur contained in pyrites combines with the hydrogen evolved from the coal, and thus produces the offensive gas. The quantity of this gas formed varies exceedingly in different kinds of coal, but is always produced more or less, and a knowledge of chemistry not possessed by the first gas-makers was necessary to get rid of it. Their only means appear to have been to choose such coal as produced the smallest proportion of the noxious gas, and to wash the gas with water as much as possible, and, in some cases, to pass it through hot iron tubes. These means effected very little; a substance was wanted which should possess an affinity for sulphuretted hydrogen, without at the same time affecting coal-gas. This substance is lime, which every experienced chemist had long known would have the effect of abstracting sulphuretted hydrogen from such a combination. The very mode of applying the lime which is now practised was suggested by Dr. Henry, of Manchester, as early as 1808. The manner of applying the lime was to mix it with water into a semi-fluid mass, which was called the "cream of lime;" through this mixture the impure gas was driven; the lime exerted its attractive influence on the sulphuretted hydrogen, and the coal-gas passed out pure. To prevent the lime from falling to the bottom of the vessel, an agitator was introduced, which kept turning round and stirring up the thick mass, which it retained in an uniform state. This plan was found to answer perfectly well, and to this day no better means have been discovered. Several of these purifiers are employed in large works, through all of which the gas passes in succession before it is quite pure. The following sketch will show how this is effected in the best establishments:—



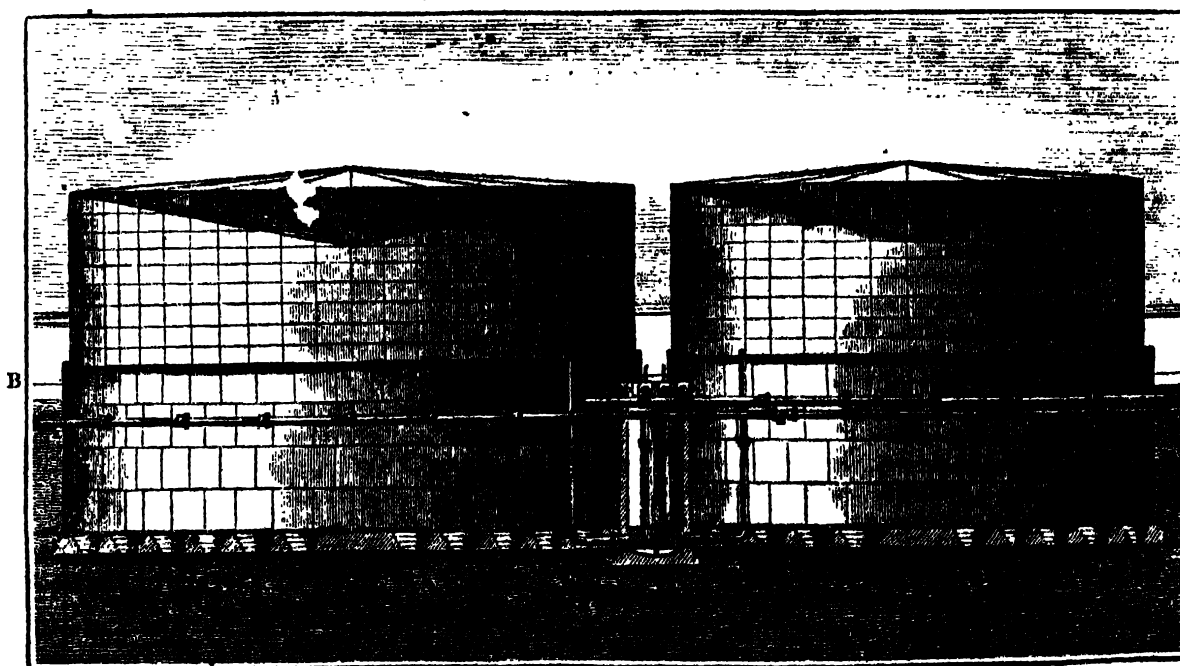
A B and C are three cylindrical purifiers, all alike, and



[The Retort House.]



[The Purifiers and Condensers.]



[The Gasometers.]

all filled with the half-fluid lime. The impure gas is first forced into the lowest vessel A, through the pipe *a*, by which it is conveyed under the shelf *d*, and spread through the lower half of the vessel, after which it escapes through small holes in the shelf to the upper part. All this time the cream of lime has been kept in constant motion by the agitator *e*, which is continually turned round, either by a steam-engine or some other moving power, and the gas is of course kept as much in contact with it as practicable. When the gas escapes from the vessel A by the pipe *b*, it enters the vessel B, where it undergoes precisely the same process as in the vessel A, and is still further purified; but lest any small remains of impurity should still exist, it is afterwards passed by the pipe *c* through the third vessel C, from whence it issues quite pure. This effect, however, is not produced, unless the lime be changed from time to time, because a certain quantity of lime is able to take up only a certain proportion of sulphuretted hydrogen, and that quantity being taken up, any future proportion of impure gas will pass out in the state in which it entered. In the present apparatus, the change of lime is almost constantly going on. The stuff is mixed in a vessel above the purifier C, into which it descends by its own weight through a pipe not seen in the figure; from C it flows into B, from B to A, and from A to a reservoir, where it is retained until otherwise disposed of. The cream is in its pure state when it enters the vessel C, and as the gas is in an almost pure state when it reaches the same vessel, the cream flows into B not much altered. In this vessel it loses much of its purifying power, and in A it is retained until it is quite saturated. By this ingenious arrangement the lime is rendered useful to the last, the gas always leaves it in its most effective state, and is consequently less liable to carry off any impurity. To judge of the purity of the gas, the most usual way is to wet a white card with a solution of sugar of lead, and to expose the card to a jet of the gas to be examined. It is a property of sulphuretted hydrogen to form with lead an insoluble dark-coloured compound; if, therefore, any of this noxious gas be present in the coal-gas, it will form this compound by combining with the lead upon the card, and produce a brown spot. When this is the case, fresh lime is placed in the purifiers, and the effete saturated stuff drawn off*.

In the principal engraving, the purifiers and condensers are shown in the second portion, which is divided from the first and third for want of room, although in fact all three portions form but one line. The gas is brought to the condenser on the right by a continuation of the hydraulic main passing behind the purifiers, and of course invisible in the figure. The tube leading from the condensers to the lowest purifier is seen, as well as those which convey the gas and lime from one purifier to the other. The vessel in which the "cream" is mixed appears, in the first division, just behind the hydraulic main. The pipe which conveys the purified gas runs all across the second portion of the engraving to the gasometers in the third division, the construction and use of which will be explained in a subsequent Number.

The saturated lime has a very nauseous smell, and was for some years a cause of great annoyance to the neighbourhood of gas-works. When thrown away to evaporate in cess-pools, or to run to the river through the common sewers, the surrounding atmosphere was polluted with the noisome stench, or the water poisoned for many miles down the river. Legislative inter-

ference corrected this nuisance. The exposure of the sulphuretted lime was prohibited, and it is now a usual practice to evaporate the water in reservoirs under the heated retorts, and to use the lime as a mortar or cement to fasten on the stoppers of the retorts, when filled with coal, so as to prevent the escape of the gas.

The proportion of sulphuretted hydrogen gas varies with the quality of the coal employed, and the quantity of lime required to purify a given quantity of coal-gas will, of course, vary accordingly. It is stated that the most impure gas may be purified by a quantity of lime equal in weight to a tenth of the coal from which it was produced, while for better coals one-third of that quantity will be sufficient.

[To be continued.]

Houses in Otaheite.—The houses are mostly built along the sea-shore, without the least regard to regularity or the formation of a town; indeed, intercourse with foreigners is not sufficiently extensive to point out the necessity of the latter. I was not a little surprised that they had gained no idea of comfort in their dwellings,—not attempting to make the slightest alteration in the style, although they have the example of Europeans before their eyes. Their huts are constructed of bamboos, placed perpendicularly, at the distance of one and a half or two inches from one another, and five feet in height, over which a roof is erected and thatched with the leaves of the cocoa-nut or palm-tree. These huts seldom possess any other furniture than a few wooden bowls and a sort of platter, on which the natives beat up the bread-fruit. One house commonly serves more than one family, although it is not divided into apartments: in some a bedstead may be seen, fixed in the ground, and which, instead of sacking, has a sort of netting, worked with line made of the *porou*. The floors are strewn with dried grass; and, as the people are not careful to change it often, cleanliness is not a very prominent feature in their habitations.—*MS. Journal of a Voyage.*

SILVER COINS FOUND AT TUTBURY, IN STAFFORDSHIRE, IN JUNE, 1831.

WHOEVER has travelled from Derby to Uttoxeter must have observed, when he has got about nine miles on his road, some fragments of ruins on a commanding eminence, at the distance of about a mile and a half on his left hand. Those fragments are the sole remains of the once regal castle of Tutbury, the favourite residence of the Earls and Dukes of Lancaster, the prison of theauteons but ill-fated Queen of Scotland and the scene of many historical events.

The hill on which the castle stands is an immense rock of alabaster, or of what is more properly denominated gypsum. Its height gives it the advantage of a very extensive prospect over a country comparatively flat, and which is only bounded by the distant mountains of the Peak of Derbyshire. Towards its own county, that of Stafford, the view is confined by the rising grounds of what once was Needwood Forest, and which at a distance still retain their former character, being well covered with trees, which form a pleasing back-ground to the scene. At the foot of this rock runs the river Dove,—here the boundary of Staffordshire and Derbyshire,—and over it is a fine stone bridge of five arches, newly erected, instead of the old narrow inconvenient one, which, till within these few years, was the only road to the town.

To give a succinct history of Tutbury Castle would be only to present, in another form, a great part of the history of the nation, so much has it been mixed up with the most remarkable events of many reigns. Whether the aborigines or the Romans had or had not a castle here is what no antiquarian will venture to decide, but all agree that during the Heptarchy the Saxons had one, and that it suffered much, if it were

* That the coal-gas may leave the purifiers as free from admixture as possible, the test is usually applied to the vessel marked B; and although, from the efficiency of this test, the impurity cannot amount to any part, the whole of the gas, after this, passes through the third purifier filled with pure lime.

not totally destroyed, by the Danes. After the Conquest, Tutbury became the property of Henry de Ferrarius, a Norman, who rebuilt the castle, and made it much more capacious than it had been before, and in its immediate neighbourhood founded a priory, the only remains of which is the present parish-church, which, in its great west door, presents one of the most rich and beautiful specimens of the architecture of the latter part of the eleventh century now to be met with in Britain.

It is the general lot of great possessions frequently to change their owners: thus we find that Tutbury was forfeited, among his other possessions, by Robert de Ferrers, Earl of Derby, in the year 1269, and was given by Edward I. to his brother Edmund, Earl of Lancaster, who dying in 1297, it became the property of his son Thomas, the second Earl of Lancaster, who repaired, beautified, and improved the castle, making it in a great measure his general residence.

The Earl of Lancaster, however, in a short time found himself embroiled with the next sovereign, Edward II. Disgusted with the manner in which Edward suffered himself to be guided by his successive favourites, Gaveston, and the two Spencers, and pitying the people who were the victims of his rapacity, and partly instigated by his own private wrongs, he, at the head of a number of barons, first remonstrated with, and afterwards took up arms against, his sovereign. A civil war was begun which was vigorously carried on on both sides. The king had advanced into the heart of the kingdom while the earl was in the north, and before the latter could stop its progress, the royal army had penetrated the country, and advanced nearly to Burton in Staffordshire. Here however the earl arrived before the king, and, taking possession of the town, determined to prevent the king from entering.

Burton is situated on the western bank of the river Trent, which is here remarkably deep, and of such a breadth as to require a bridge of a quarter of a mile in length to connect it with the neighbouring county of Derby, and to open a communication with the adjoining towns of Leicestershire. This bridge is very narrow and very crooked, full of angles and projections, and so contrived, that but few persons can pass abreast over it; at that time it was less commodious than at present, for independently of the chapels which at that period formed a component part of every bridge, it had a number of other buildings at the ends, and towards the middle. Thus situated, it was easily guarded, and Earl Thomas determined to dispute the passage to the last extremity. On this bridge he considered his safety to depend, for without crossing the Trent, he knew that his castle of Tutbury could not be approached, and there was no other bridge within many miles. Confiding in his situation, though deserted by the barons who had promised him assistance, he was not a little surprised when part of Edward's army attacked his forces in the rear, having, by means of a guide, found a ford about five miles above Burton, by which they had crossed the river, while the other part remained near the bridge, apparently with a determination of forcing a passage, as a feint to draw off the earl's attention to the real quarter of attack. The earl was now obliged to fly to the only refuge he had left, his apparently impregnable fortress of Tutbury.

Tutbury is only about five miles from Burton, and scarcely had Lancaster got into the castle with the remnant of his followers, when he found the royal forces were at the gates. To stay was not possible, to come out on the Staffordshire side impracticable, and the river Dove, at that time scarcely fordable, and over which there was not then any bridge, appeared completely to cut him off from entering Derbyshire, and passing through that county to his castle of Pontefract

in Yorkshire. This, however, he was under the necessity of attempting, and after leaving his baggage and military chest in the care of his treasurer Leicester, with directions to convey them in safety as soon as possible to Pontefract, he and his followers made the attempt, and, in spite of the high floods, succeeded.

Such was not the fortune of the military chest, the sole treasury of the unfortunate earl, the contents of which he had been long amassing to pay his troops and discharge the current expenses of the war. Leicester did his utmost to preserve it, but in the confusion of crossing the river in the dark, with a guard which was as it were panic-struck, the chest with all its contents was lost in the Dove, nor had the treasurer ever after an opportunity of returning to attempt its recovery.

A few words will suffice to complete the history of the adventurous earl. He found himself deserted by those on whom he placed dependence, and was finally betrayed into the hands of his enemies, who conducted him to Pontefract, where, after suffering the greatest indignities, as is generally the case with fallen greatness, his head was struck off in the latter end of March or beginning of April, 1322.

Of the immense sum of money thus deposited in the bottom of the Dove, astonishing as it may seem, nothing was known or heard till the month of June, 1831. Two bridges had been built, a corn-mill erected, and subsequently a cotton-mill, weirs and dams had been formed, and many cuts and alterations made in the river, without this treasure having ever been brought to light: when, on the 1st of June, the proprietors of the cotton-mills having commenced the operation of deepening the river, for the purpose of giving a greater fall to the water from the wheel, the workmen found among the gravel, about threescore yards below the bridge, a few small pieces of silver coin, of such a kind as they had never seen before.

Sir Oswald Mosley, Bart., in his recent 'History of the Town and Houses of Tutbury,' as a supplement to the history of Thomas, Earl of Lancaster, in the former part of his work, gives the following account of the finding of these coins:--

"Mr. Webb, the proprietor of the cotton-mills at Tutbury, being desirous to obtain a greater fall for what is commonly termed the tail water of the wheel, which works the machinery of his mill, prolonged an embankment between the mill-stream and the river much further below the bridge than it formerly extended; and, as a part of his plan, it became requisite to wheel a considerable quantity of gravel out of the bed of the river, from the end of his water-course as far up as the new bridge. While they were engaged in this operation, on Wednesday, the 1st of June, 1831, the workmen found several small pieces of silver coin about sixty yards below the bridge; as they proceeded up the river they continued to find more; these were discovered lying about half a yard below the surface of the gravel, apparently as if they had been washed down from a higher source. On the following Tuesday the men left their work in the expectation of finding more coin, and they were not disappointed, for several thousands were obtained that day; as they advanced up the river they became more successful; and the next day, Wednesday, June the 8th, they discovered the grand deposit of coins, from whence the others had been washed, about thirty yards below the present bridge, and from four to five feet beneath the surface of the gravel. The coins were here so abundant, that one hundred and fifty were turned up in a single shovelful of gravel, and nearly five thousand of them were collected by two of the individuals thus employed on that day; they were sold to the by-standers at six, seven, eight, or eight shillings and sixpence per hundred; but the next day a less quantity was procured, and the

prices of them advanced accordingly. The bulk of the coins were found in a space of about three yards square near the Derbyshire bank of the river. Upwards of three hundred individuals might have been seen engaged in this search at one time, and the idle and inquisitive were attracted from all quarters to the spot. Quarrels and disturbances naturally enough ensued, and the interference of the neighbouring magistrates became necessary. At length the officers of the crown asserted the king's right to all coin which might subsequently be found in the bed of the river, since the soil thereof belonged to his majesty in right of his duchy of Lancaster. A commission was issued from the chancellor of the duchy, prohibiting all persons, excepting those appointed therein, from searching, or authorising others to search, for coin in the river; and for the purpose of insuring the king's rights, the commissioners were directed to institute a further search on behalf of the crown, which search commenced on the 28th of June, and was discontinued by them on the 1st of July, after having obtained under it upwards of fifteen hundred more coins, which were forwarded to his majesty and the chancellor of his duchy. At the end of this search, the excavation, from whence the coins were principally taken, was filled up, and a quantity of gravel spread over it for the purpose of levelling the bed of the river, so that any further search would now be quite ineffectual. The total number of coins thus found is supposed to have been, upon the most moderate computation, one hundred thousand."

The crowds who assembled from the neighbourhood to hunt after this treasure were naturally very great. Those who found a coin had much difficulty in detaching it from the gravel in which it had become imbedded. Having been for such a succession of years lying amid the soil which once formed the bed of the stream, and on which the water had gradually deposited stratum upon stratum of sand and gravel, the mass had become a hard substance, scarcely yielding in solidity to stone itself, in which coin upon coin appeared to form some of the original component parts. A representation of a fragment of this conglomeration, happily preserved

from destruction by purchase from the finder, forms the vignette at the end of this article; and, to a stranger, may convey some little idea of the manner in which the coins were deposited.

The annexed engraving is a specimen of one of the most curious and perfect of the coins, from which an idea may be formed of the nature of the rest. Besides a number of sterlings of the Empire, Brabant, Lorraine, and Hainault, and the Scotch coins of Alexander III., John Baliol, and Robert Bruce, there was found a complete English series of those of the first Edward, who, at various times, had his money struck at the following places, viz.:—London, York, Canterbury, Chester, Durham, Lincoln, Bristol, Exeter, Berwick, St. Edmunds, Kingston, and Newcastle; and also of those he had struck at Dublin, Waterford, and Cork. There were also found specimens of all the prelatical coins of Edward I. and Edward II., as of Bishops Beck, Kellar, and Beaumont, Bishops of Durham; some others, thought to have been struck by the Abbot of St. Edmunds, bearing upon them the name of "Rob. de Hadley," and a few issuing from the archiepiscopal see of York. Besides those enumerated, there were many of Henry III., both of his first and second coinage, and a few of the most early of Edward II. On the whole, a finer museum of early English, Scotch, and Irish coins was never before, under any circumstances, thrown open to the inspection of the antiquary and historian.

It seems, upon the whole, rather surprising that the English coins found should all have been of the same size and value, which, with one single exception, seems to have been the case. This exception was a very beautiful coin of silver, of about the size of a half-crown, and of the reign of Edward I. Nor is it less surprising that the chest should have contained no jewellery, or other valuable articles, one ring alone being found in the river, which was probably lost by some one of the Earl's officers in fording. It was rudely chased, and bore within the circle the motto "SPRETA VIVANT"



[Representation of the Coins as Found at Tuthury.]

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The volume on 'Timber Trees' contains, in the 'Library of Entomology,' No. 41 of the bread-fruit; and, presenting another species of the same tree, we have some sources for such information concerning the species as the former article does not supply.

The bread-fruit tree, originally found in the south-eastern parts of Asia and the islands of the Pacific, though now introduced into the tropical parts of the western continent, and the West India Islands, is one of the most interesting as well as singular productions of the vegetable kingdom. There are two species of it:—the bread-fruit, properly so called (*Artocarpus integrifolia*), with the leaves deeply cashed, or divided at the side, which grows chiefly in the islands; and the

jack-fruit (*Artocarpus integrifolia*), which grows chiefly in the mountains of Asia.

The bread-fruit is a tree as well as a useful tree: the trunk rises to the height of about forty feet, and, in a full-grown tree, is from a foot to fifteen inches in diameter. The bark is rough and scaly, full of little chips, and covered with a kind of resin; the inner bark is fibrous, and used for the manufacture of a sort of cloth; and the wood is soft, and of a yellow colour. The branches come out in a horizontal manner, the lowest ones about ten or twelve feet from the ground, and they become shorter and shorter as they are nearer the top. The leaves are divided into seven or nine lobes, about six or eight inches or two feet long, and are of a dark green colour. The male and female flowers, which are borne on the upper leaves, and the females

at the extremities of the fruit is about nine inches. The fruit is heart-shaped, of a greenish colour, and marked with hexagonal warts, formed into facets. The pulp is white, partly fleshy, naceous and partly fibrous; but, when quite ripe, it becomes yellow and juicy. The whole tree, when in a green state, abounds with a viscid milky juice, of so tenacious a nature as to be drawn out in threads.

The bread-fruit tree continues productive for about eight months in the year. Such is its abundance, that two or three trees will suffice for a man's yearly supply, a store being made into a sour paste, called *maka* in the islands, which is eaten during the unproductive season. When the fruit is roasted until the outside is charred, the pulp has a consistency not unlike that of wheaten bread, and the taste is intermediate between that of bread and roasted chestnuts. It is said to be very nourishing, and is prepared in various ways.

The timber of the bread-fruit tree, though soft, is found useful in the construction of houses and boats; the male flower, dried, serves for tinder, and the juice answers for bird-lime and glue; the leaves for packing and for towels; and the inner bark, beaten together, makes one species of the South-sea cloth.

The Jaca or Jack, which is represented in our Wood-cut, grows to the same, or even to a larger, size, than the bread-fruit of the Society Islands; but it is neither so palatable nor so nutritious. Though its specific name implies that it is entire-leaved, the leaves of it are sometimes found lobed, like those of the other. The fruit often weighs more than thirty pounds, and contains two hundred or three hundred seeds, each of them four times as large as an almond. December is the time when the fruit ripens; it is then eaten, though not much relished; and the seeds or nuts also are eaten, after being roasted. There are many varieties of the Jaca-tree, some of which can hardly be distinguished from the seedling variety of the true bread-fruit. The fruit, and also the part of the tree in which it is produced, varies with the age. When the tree is young the fruit grows from the twigs; in middle age it grows from the trunk; and when the tree gets old it grows from the roots.

MOHAMMEDAN SCHOOLS.

"KNOWLEDGE IS POWER," said one who knew in its fulness that power which knowledge gives; and we trust that it promises well and pleasantly for the future that this true and beautiful expression is, as a quotation, become hackneyed. In the same degree that knowledge is power, ignorance is weakness. Sorry are we to say that even in this country striking and painful evidences of the utter weakness of ignorance are not difficult to find: but, when they are found, other instances of the power and beauty of knowledge fail not to occur so soon after as to soften greatly the painfulness of the general impression. We thus become more reconciled to things as they are on the whole—more reconciled to the existence of ignorance, than we should be if we were to see the universal mind kept feeble by its weakness, and overshadowed by its gross darkness. This is seen in the East; and what the traveller sees there is calculated more than anything we know to impress upon him—not merely with the cool conviction of the understanding, but with the intensity of a feeling—how exceedingly pitiful and weak ignorance is; and, therefore, how strong and beautiful is knowledge. Among savage people this is never felt. Their modes of life and habits of thought and feeling are so entirely different, as to carry them out of that condition in which we regard ignorance with pain. But the case is different with the nations of the East. They may be con-

sidered as civilized; they have colleges and schools, they have a literature; they even know that knowledge is power, and often eagerly seek for such as may be obtained; which, however, is both scanty and bad. This will be shown by an account of the mode in which instruction is conveyed, in the common Mohammedan schools, with a particular view to the art of reading, as from the state of that art, which is simply a minister to knowledge, the general condition of knowledge itself will in the present instance be easily deduced. Our statement will be understood to be drawn up so as to be applicable on the whole to most Mohammedan countries, but with an especial regard to Persia,—the Moslem country in which education is more valued, and therefore more diffused than in any other. It will also include the Armenians, a Christian people who inhabit chiefly in the countries to which this statement refers, and who, as a people, exhibit a very strong sense of at least the usefulness of knowledge, and seek for it with an earnestness and zeal worthy of far better rewards than the East can give.

If the stranger in a Moslem country in passing through the streets is attracted, by a noise for which he cannot satisfactorily account, towards the building in which the school is held, he will, on looking in, probably see a long and narrow room, at one end of which is seated a man with a long beard*, while the sides are lined with little boys of various ages squatted upon their heels on the floor, which is generally covered with a thick mat, in addition to which those parents who can afford it provide their sons with a bit of carpet or felt in Persia, or with a cushion in Turkey, to place between them and the mat. Some of the elder boys go so far as to obtain a cushion to introduce between their backs and the wall, but this luxury is rather discountenanced by the masters as an encroachment on their own peculiar dignities. All the boys have their heads covered; but they are without their shoes, which are left near the door, so mingled, and so similar in shape and colour, that it would seem difficult for each to find his own; but, on the breaking up, every one seems to slip his feet into his own shoes, without any of that individual hesitation or general confusion which might be expected. When the boys are learning their lessons or repeating them to their master, they do so all at once, with a loud voice and with a continual see-saw of the body, without which movement they seem to conceive it impossible that anything can be learnt. The scene which this affords is exceedingly ludicrous to an European, particularly as the zeal of the learner is estimated by the loudness of his voice and the violence of his see-saw, and hence, when conscious of the approach of a person whom the master or pupils wish to impress with a favourable opinion of their application and progress, the noise in the schools, which may previously have sunk into a low hum, rises abruptly to the clamorous uproar of many voices. It seems that in reading all at once to the master, the elder boys, if the school is large, are expected to give some attention to the others near them. The master cannot in such a noise distinguish the individual accuracy of each reader; and his attention is therefore directed to observe that time is as nearly as may be kept by the voices, and, in some measure, in the motions also of the pupils. This object seems but poorly attained; but still the attempt so far succeeds, that there is a very sensible difference between the noise of the formal reading and that of the audible conning of the lessons. The style of reading, which this system produces, is most unnatural; being as different as possible from the unartificial tone of conversation. It is a drawing chant, uttered in a very loud voice. In the East, generally, the tone of the

* Schoolmasters retain their beards, even when whiskers only are sanctioned by general usage.

voice is very high, even in common conversation; but in reading it is raised to screaming. A recent traveller relates that some Arabs desired him to let them hear him read. He complied, on which they exclaimed, "You are not reading; you are talking!" The fact however is, that, except among those of the learned professions, few of those who have professedly learnt to read in the schools can or do exercise the acquirement in after life; and the few who remain actually qualified to read with facility, rarely do so without some stimulus, incomparably stronger than would be required in this, or perhaps any European country. After a residence of several years among Mohammedan people, the writer does not recollect more than three instances in which he has seen persons quietly engaged in reading a book to themselves, although all the actions of their ordinary life are much more exposed to public notice than can be well imagined in this country.

These facts are easily explained. The want of the art of printing renders books expensive articles of luxury in Mohammedan countries; and this is alone sufficient to account for much that we have stated. Before the introduction of that art, the state of knowledge among the people was not more favourable in this country than it is in Persia now, perhaps, indeed, considerably less favourable. There is also another less obvious circumstance, which would have great influence even were manuscript books much more common and cheap than they are; this is, the difficulty of reading manuscript. This difficulty should not be underrated. Even in this country, most educated persons would require considerable stimulus to induce them to go through a manuscript volume. Those only whose duty it is to examine manuscripts, and to prepare them for the press, can describe the tediousness of the occupation. It is not one of the least advantages of printing that it has tended to simplify the character employed in the preparation of books, and to render it uniform. This comparison very imperfectly illustrates our meaning; for our manuscripts are far more legible to us than those of the East are to an Oriental. Among ourselves, many persons who can write short-hand with facility are unable to read it with ease; an Oriental manuscript is a sort of short-hand which many more persons are able to write than to read. The words are abbreviated, as in short-hand, by the omission of vowels; and when the words are decyphered, the want of punctuation renders it often difficult to discover at once the meaning of the phrases. When to this it is added that there are several different styles of writing, besides the difference occasioned in the several manuscripts by the variety of individual hands and flourishes; it will be perceived that a person cannot read with facility without more practice than the state of literature and knowledge encourages any considerable number of students to seek, or enables them to obtain.

A stranger is very liable to be deceived in estimating the competency of a Mohammedan to read. A very large part of a common education consists in learning by heart a very considerable portion of the current literature, particularly of the Kuran. He is therefore able to repeat by rote the most striking passages of almost any of the very limited number of books which are likely to be placed before him. He will turn over its leaves until he can find some passage with which he is acquainted, and will repeat it correctly as if from the book; but if suddenly interrupted, he is afterwards quite unable to indicate the part of the page at which the interruption took place. The quantity of poetical literature with which the mind

of a Persian is stored, is perfectly amazing; and this alone suffices to show that books are scarce and reading difficult, while it also indicates what might be expected from them under a better system. As it is, the listening to tales and recitations delivered by persons who make it a profession, occupies, in some measure, the same place among Mohammedans as reading among ourselves; and any person is sure of an audience who sits down and professes his skill and willingness to afford amusement or instruction. In some places, indeed, there is no instruction beyond that of reading and writing, to be obtained in any other manner than from persons who exhibit their information for the sake of the farthings which may be collected from the audience at the conclusion. In some towns men of professed learning are accustomed to go to the porch of the mosque and there begin to read, lecture, or preach, to the people who collect around them; and it is not unusual for two persons to seat themselves opposite each other and instruct their auditors by a vehement dispute on any subject which they consider attractive. Such practices could only afford remuneration where there is a thirst for better knowledge than the ordinary channels of instruction afford. This thirst seems more intense in Persia than in any other Moslem nation. But all other Asiatic people, known to the writer, are exceeded in this by the Armenians, who have been led to feel very strongly the practical inutility of the instruction which the ordinary schools afford, and have therefore been induced to make greater efforts than any other people to obtain for their sons the benefit of a better system. For this purpose some of those who can afford to send their children, at a great expense, to a distant country, and maintain them there; while others anxiously endeavour to induce persons who have acquired a reputation as teachers to settle among them and undertake the instruction of their sons. The lads themselves have a strong feeling on the same subject; and when a little of true and quickening knowledge has been laid before them, they have displayed such docility, such patience, and such unwearied zeal, as has often moved the writer earnestly to hope that they might not much longer be shut out from the benefits which they have learned to value and desire. Meanwhile it may not be amiss to mention that they are the only people in Mohammedan Asia who have anything like a printed literature. They are supplied with printed books from presses established at the Armenian institution of St. Lazarus at Venice, at Vienna, in Russia, in India, and other parts. Many of these works are beautiful specimens of typography; and it may be interesting to add that they include translations of several English works, such as 'Paradise Lost' and 'Robinson Crusoe.'

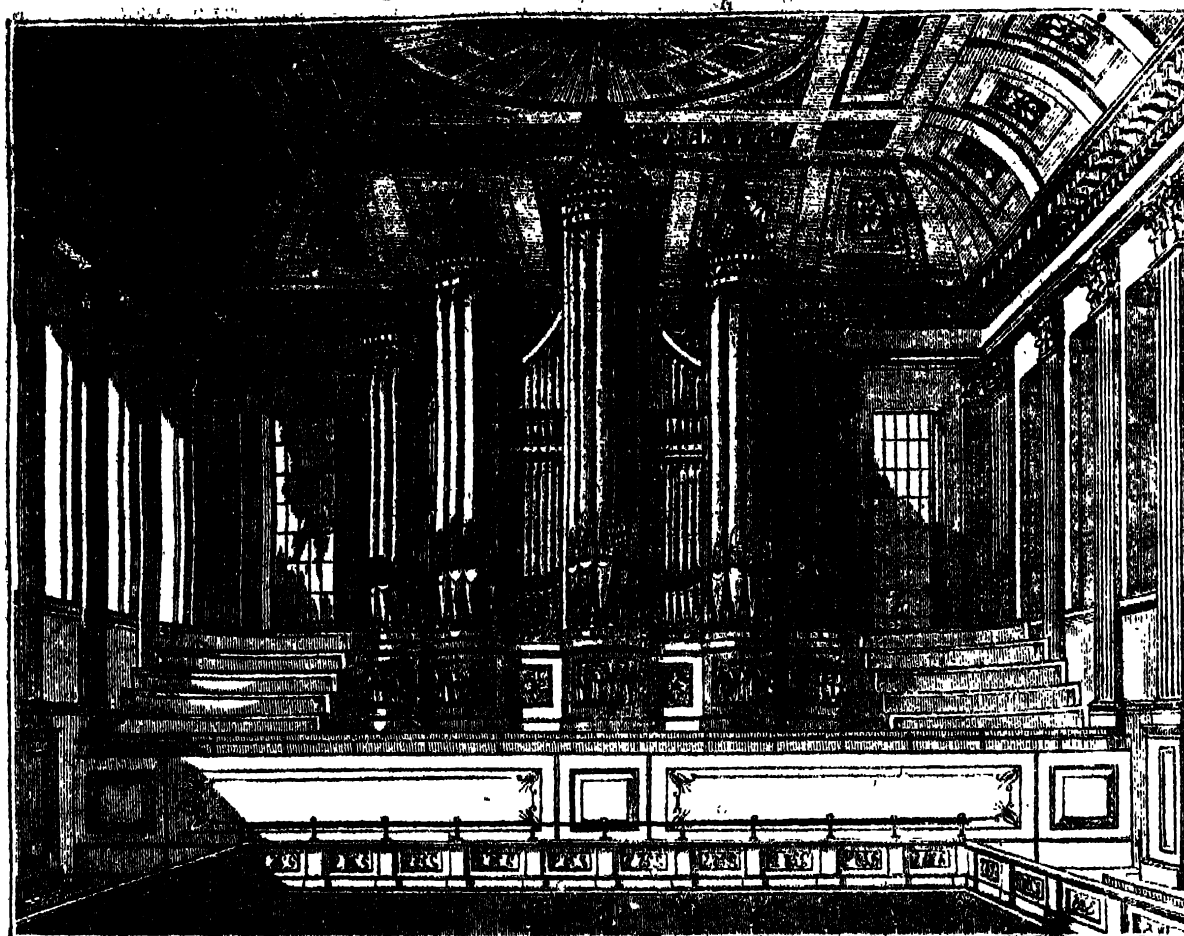
When the Mohammedans are brought into contact with Europeans, it is impossible for them not to feel how immeasurably inferior they are to the latter in knowledge, and in that power which knowledge gives. To diminish the difference seems hopeless to them, and under the mortifying consciousness of their inferiority as a people, they often endeavour to console themselves by saying that it is "their fate." The Franks, they exclaim, have all their good things,—their knowledge and their power—in this life: but *they* shall have their own hereafter when the "Infidels" lie howling.

Self-Lovers.—Extreme self-lovers will set a man's house on fire, though it were but to roast their eggs.—*Bacon.*

Wonders.—Men, till a matter be done, wonder that it can be done; and, as soon as it is done, wonder again that it was so soon done.—*Bacon.*

* It is scarcely worth while to mention the feeble operations of the press at Constantinople and in Egypt as exceptions.

THE BIRMINGHAM ORGAN.



Grand Organ in the New Hall, Birmingham.

A wood-cut, with a description, of the Birmingham Music Hall, was furnished in No. 142 of the 'Penny Magazine,' and some mention was then made of the grand organ which occupies one end of that noble apartment. Before proceeding to give a more particular account of this already celebrated, though unfinished instrument, it will be useful to afford materials for comparison, by stating a few particulars concerning some other principal organs, referring to No. 161 for an account of that at Haarlem.

In the cathedral of Seville, in Spain, there is an organ with 100 stops, which comprise 5300 pipes. The organ at Görlitz, in Upper Lusatia, has 82 stops, comprising 3270 pipes. That at St. Michael's, in Hamburg, has 67 stops (not 64, as stated by Burney), containing nine pipes of 16 feet, and three of 32 feet, with four rows of keys. It was erected at the cost of 4000*l*. At Weingarten, a Benedictine monastery in Suabia, there is an organ with 60 stops, which comprise 6666 pipes, seven of which are 16 feet high, and three 32 feet. It is stated that the monks were so delighted with this fine instrument, that they presented the builder, Gabelaar, of Ulm, with 6666 florins—a florin for each pipe—beyond the amount of his charge. The old organ at York was the largest in England; it had 52 stops, 3254 pipes, and three rows of keys. The largest organ at Rome is that in the church of St. John Lateran: it has 36 stops. There is one in the cathedral at Ulm that has 45 stops with 3442 pipes. At Baltimore, in the United States, there is an organ in the cathedral which has 36 stops, with 2218 pipes, the height of the largest of which is 32 feet.

It is usual, in describing an organ, to dwell particularly on the number of its stops; but, in point of fact, the number of the pipes is a more accurate criterion of the power of such instruments. Many of the organs on

the continent, with such an imposing number of stops, are in actual power greatly inferior to others of much humbler pretensions. To complete this comparative statement, we may add, that the organs at Seville, Görlitz, Merseberg, Hamburg, Weingarten, and Tours, are all larger than that of Haarlem; and that the new instruments at York and Birmingham exceed them all. It is still a disputed point which of the two latter is the largest, though the question would not seem to be very difficult to determine; but it is admitted that the pipes in the Birmingham organ are a trifle larger than in that at York; and from its situation in a noble room, built expressly for the purposes of music, and in which the volume of sound is not deadened, broken, or impeded by pillars and other obstructions, it possesses advantages which would enable a very ordinary instrument to compete, in fulness of effect, with the most powerful cathedral organs.

The width of the Birmingham organ is 35 feet; the depth 15, and the height 45. The swell-box, or receptacle for the pipes used for the swell only, is of the size of an ordinary church-organ. Although the instrument was employed at the late Musical Festival, it is still in an unfinished state: the number of pipes which will be placed in it cannot yet be exactly ascertained, but it will probably exceed that in any of the organs we have mentioned. The largest central pipe is 35 feet long, and rather less than 21 inches in diameter; but, of course, the sounding part of this pipe only extends 32 feet in length. The foot of this pipe is four feet in length, and weighs not less than 224 lbs. The metal pipes of large dimensions are made entirely of zinc. When the organ is finished, there will be about 60 *real* stops; but the *mixture* stops are not yet introduced. There are four rows of keys, and one extensive set of pedals, or foot-keys, and five common

bellows to give wind to the forest of pipes. In the swell-box a set of bells (*carillons*) has been placed, which appears to be a greater novelty than improvement; the effect produced is not good, and it would be well, perhaps, either to substitute larger bells or relinquish them altogether. By a remarkably ingenious mechanical contrivance, it is so arranged that all the various stops of the instrument may be combined on any one of the *claviers*, or sets of keys, by which the power of producing grand effects is almost infinitely extended.

In this organ there is a reed stop, called the *Posaune*, or trombone, which all who are acquainted with the organs of the continent consider to be the most powerful and the richest in tone of any existing. The powerful volume of sound proceeding from this stop is mingled with a mellowness which corrects the unpleasant impression which loudness occasionally produces. The assistance afforded by these pipes to the voices in the choruses cannot easily be estimated by those who have not heard it. It may fairly be stated that, while the *Posaune* renders the most effectual aid in blending the voices into one mass, it adds at least fifty per cent. to their power. This stop alone is sufficient to render the organ remarkable; and much of the superiority of the choral effects at the Birmingham Festival, above those produced at the recent commemoration in Westminster Abbey, is attributed to the power of this splendid stop.

The builder of this grand instrument is Mr. Hill, of London. The requisite funds were raised by subscription, and the expense is calculated at the very moderate sum of 2,000*l.*, which seems to indicate that the artist has rather sought reputation than pecuniary profit in his undertaking. The case of the instrument is from a design by Mr. Mackenzie, and perfectly harmonizes with the architectural style of the building in which it is placed. It is calculated that the timber alone employed in the construction of this organ would weigh between twenty and thirty tons, while the metal and other materials of the structure would raise the weight of the whole to at least forty tons.

DIFFICULTY OF SUPPLYING THE WANT OF EARLY EDUCATION.

[From a Correspondent.]

THE 'Penny Magazine' has furnished several papers on the general subject of Education; but as I do not remember to have seen any individual case in its pages, I venture to communicate to you some points in my own history, which, if I am not mistaken, strongly illustrate the importance of acquiring, early in life, the fundamental knowledge which education supplies.

I think I may say that, in the whole of my life, I have never received any other direct and actual knowledge from others than such as a person necessarily, in his passage through life, glean from those with whom he has intercourse. I was taught, indeed, to read and to write; but you are aware that reading and writing form no part of real knowledge, being simply acquirements—implements—with which, if we learn how to use them, some knowledge may be acquired and communicated. Poverty and great bodily infirmity concurred to stop my education at this point. Poverty required that I should early win my bread by the sweat of my brow; but my personal infirmities interposed, and procured me more leisure than a poor boy usually finds, and which I would then gladly have exchanged for the food and raiment which I might, under happier circumstances, have obtained by bodily labour.

My boyhood and my youth is now over, and, in reviewing my past career, I am sensible of many errors of conduct, and of many omissions of the duty which each man owes to himself; but in adverting to the par-

ticular period I have mentioned, I am at a loss to perceive how, under all the circumstances, I could better have employed the uncontrolled and unguided leisure of my boyhood than I did. During this period, and subsequently in the intervals of manual occupation, I read with eagerness every printed thing that fell in my way,—from the placard on the wall, and the torn newspaper gathered from the street, to volumes from the shelves of my neighbours—and from the nursery-book and the fairy-tale, to the poetry of Milton, and the metaphysics of Locke. Thus, in the progress of years, I gathered together a considerable quantity of general knowledge, mixed with much rubbish and unprofitable matter. I gathered this knowledge together in solitude and silence, without the cognizance, direction, encouragement, or control of any living soul. I was even stirred by reading to think and to write for myself; and I acquired the power of expressing what I thought, or wished to state, just as I now express it to you. "Then you are a self-educated man?" No. I consider myself an uneducated man; and it is precisely my object to state that, while my actual acquirements have made happy and useful a life which once promised nothing of comfort or utility, I have suffered much from the want of that mental discipline in early life, and of those connected studies and regulated pursuits which form what I understand by the term "Education."

When I was at last brought by circumstances to mingle more with my fellows than I had hitherto done, I was soon enabled to discover that "knowledge was power." My situation was then such as to cause the amount of my attainments to be seen through a magnifying medium by myself and others; and by degrees I began to entertain the thought that I might one day inscribe my name among those which posterity would remember. But when I sat down quietly to consider the matter, I saw that to build up a structure in the world which I could myself regard with satisfaction, much was wanting which it did not seem likely that I should ever acquire.

Education was that which I wanted, and I perfectly well knew this want, and fully purposed to repair it to the best of my power; but I could not feel the prospect encouraging, that I should be obliged to spend the leisure of my best days, amidst the business and anxieties of mature life, in acquiring the routine and elementary knowledge with which others came into the active world ready furnished from their schools, and which had there formed the suitable employment of their unoccupied boyhood. In after years, I went on increasing my stock of actual knowledge, and supplying the want of early education, as well as my opportunities and means allowed; but, with regard to education, I found, in practice, that the business of self-instruction was too frequently interrupted by the attention which subjects of more immediate and important interest required; and I believe it will always be found a work of difficulty and self-denial to give the attention to the acquisition of the materials and elements of thought and knowledge when the mind has acquired maturity of action, and finds that its strength and vigour *might* have been much more fittingly employed in dealing with accumulated elements, and forming a superstructure on accumulated materials. The case is that of one who might be erecting a house in which men may dwell, or a temple in which they may worship, but is obliged to bore stone at the quarry, or make bricks in the field.

I am anxious to be distinctly understood. I may be said, "Many are obliged to learn things which they ought to have learnt at school. There is Mr. A—, who is now, at the age of 40, learning Greek." Now, I will not stop to ask whether Mr. A— might not, at the age of 40, be better employed than in

learning Greek; but I would say that this case, or any such case, has nothing at all to do with the subject before us. An educated man may, with facility and interest, study a language or a science, the process of acquiring which would be tiresome and difficult to one who is uneducated. The former has habits of connected study which facilitate his progress; and the languages or sciences with which he is acquainted suggest analogies and differences, elucidate obscurities, and, altogether, greatly enliven his progress in the acquisition of a new science or a new language. The educated and uneducated man may, at the same time of life, be apparently occupied in the same pursuit; but the actual difference between them is incalculable. The one is working lightly to place a turret upon the tower he built up in his youth, while the other is digging, with great labour, in a stubborn soil, the foundations of a prospective structure.

It was thus that I soon learned to feel the position which I occupied, and was led, on consideration, to think, that to acquire a routine education would exclusively occupy the leisure of more years than the shortness of active life would authorize me to spare; and that I could not, under all the circumstances, do better than to continue to accumulate that general information which is not science, or learning, or education, but yet is something of all. I really think, at this day, that I could not have arrived at a better conclusion: if I had determined otherwise, my education would still be far from completion, and I should have wanted some practical habits and attainments which I am enabled to turn to useful account, and which will, I trust, mark my existence as one that has not been spent in vain. Through the habits of mind which I have been enabled to form, in spite of the want of education, my life has been rendered comfortable. I can obtain the means of satisfying all my reasonable wants; I have many friends, and never had a foe; and those with whom I am in duty or in friendship connected seem to award me quite as much consideration as I feel entitled to expect. And yet, with all this, the want of education has exposed me to drawbacks and mortifications which make me often feel as if I were an intruder on the position to which I have attained; and I am perfectly assured that if I could impress my convictions as strongly as I entertain them upon the mind of a parent or a child, nothing would appear to them more important than the habits which early education produces, and the fundamental acquirements which it bestows.

I think I have said that at the time when I knew little, practically, of myself or of others, fame appeared to me as a primary object of existence. But my young ambition, in the course of following years, spontaneously moulted many of its plumes, and many others were roughly torn off in my passage through the world. Time and experience rendered my character less sanguine than it had been; the cares and duties of life gathered around me, and I became acquainted with men whom I could at once acknowledge as much superior in natural and acquired power to myself. These things brought me down to my true position, and taught me to be content to be quietly and unobtrusively useful; and, ultimately, the desire to be useful became to me nearly as strong a principle of action as the desire of distinction had formerly been.

Yet the comparative moderation of my present objects does not exempt me, as I have intimated, from much cause to regret the want of early education. And this want I have now no expectation ever to repair: for the time is come when I must live upon what I have already done, and my time is of too much immediate value to allow me to do much more. In this great city I have found my level, as most other men find theirs. That level is an eminence compared with my early

prospects; but, circumstanced as I now am, the limit of my usefulness is the limit of my ascent; and I am connected with those who hold a man in consideration less in proportion to the difficulties he has overcome, than according to the actual and practical amount of his usefulness and talent. Now, education is a most important—almost an essential—element of the usefulness of a civilized man to the world, and to the circle which time gathers more immediately around him; and while I am perfectly content, and even happy, in my actual position, in which all the real abilities I may possess are well employed and well recompensed, I never had occasion to feel more intensely all the advantages which education bestows, and never perceived so clearly to what excellent account these advantages might be turned. There are also in such a condition many mortifications, one of which it may be worth while to mention. When a person hears that another had not the advantages of education and yet is of studious habits, he takes it for granted that he has rendered himself an educated man, without considering that it is as probable—perhaps more probable—that he employs himself on things which form no part of education, and which the educated man adds to his education. Hence the uninstructed student is often inconsiderately asked, by persons who are not well acquainted with him,—how many languages and sciences he knows?—an astounding question, the answer to which must make the inquirer feel that the talents and acquirements of the person whom he questions had been immensely exaggerated, if he forgets that while many school boys know more than he, many men who have been school-boys know less.

I could say much more on this subject, but I have said as much as I desire if I have shown the importance of early education, by exhibiting the great difficulty of supplying the want in after life, and the disadvantage of leaving it unsupplied.

Cleanliness.—The frequent use of the bath, and scrupulous attention to cleanliness, are among the surest means of restoring health to those who are sick, and securing it to those who are well. It is an astonishing fact that few countries in the world are so badly supplied with proper bathing-places as England, and that (taking the people in the mass) there are few among whom the use of the bath is less general than among the English. And yet we consider ourselves, and, indeed, especially pride ourselves on being a very cleanly people. We suspect there is some truth in a sarcastic remark which we met with a few years ago—"A Frenchman in the middling ranks of life often puts on a dirty shirt over a clean skin, but an Englishman of the same condition still oftener puts on a clean shirt over a dirty skin." The extravagant price paid even in London for a bath, is proof enough that the use of it is very confined. If it were more general, there would be a competition of speculators in that line, and the number of baths would be increased, and the prices lowered. As less is paid for a bath now than was paid in 1815, we may perhaps conclude that there are more bathers than formerly, and that the salutary practice is rather on the increase among us. Before the last peace, there were few of our provincial towns that had public baths of any kind, and in many of the northern parts of the island no such vessel as a bath had ever been seen. To speak of London alone, with its admirable supply of water and fuel, with the ingenious contrivances lately invented to economize fuel, and generate and diffuse heat at small expense, we think it might be practicable to let the poor man have his bath for two or three pence. Indeed, there can be no doubt but that it would be practicable, if the purifying and most salutary practice of bathing were to become general among the people. If the working classes were once tempted by low prices, we think it pretty certain that they would contract the habit to such an extent as to make low prices pay those who should speculate in such establishments.—*Quarterly Journal of Education*, No. XVI.

THE MENAI SUSPENSION-BRIDGE.

The most obvious and simple bridge is that formed by single trees thrown across small streams, or, in case of broader streams, by fastening the roots of a tree on each bank, and twisting together their branches in the middle. The next step is not much more complex; for in a space too great for the before-mentioned operations, few manual arts were required to form ropes of rushes, or leathern thongs, to stretch as many of them as were necessary between trees, or posts, on the opposite banks, and connect and cover them so as to form a slight bridge. The following accounts, given by Don Antonio de Ulloa, will afford a notion how these sorts of bridges were constructed and used in the mountainous parts of South America:—"Several bujucos are twisted together, so as to form a large cable of the length required. Six of these are carried from one side of the river to the other, two of which are considerably higher than the other four. On the latter are laid sticks in a transverse direction, and, over these, branches of trees as a flooring; the former are fastened to the four which form the bridge, and by that means serve as rails for the security of the passenger, who would otherwise be in no small danger from the continual oscillation." A sketch will be found in No. 10 of the 'Penny Magazine' of a bridge of this description. "Some of the rivers," says the same author, "are crossed by means of a tartabita. The tartabita is only a single rope, made of bujuco, or thongs of an ox's hide, and consisting of several strands, and about six or eight inches in thickness. This rope is extended from one side of the river to the other, and fastened on each bank to strong posts. From the tartabita hangs a kind of leathern hammock, capable of holding a man; and a cluc is attached at each end. A rope is fastened to either cluc, and extended to each side of the river, by drawing the hammock to the side intended. On one of the banks is a kind of wheel, or winch, to slacken the tartabita to the degree required; and the hammock being pushed on first setting off, is quickly landed on the other side. For carrying over the mules two tartabitas are required, one for each side of the river, and the ropes are much thicker and slacker. The animal being secured with girths round the belly, neck, and legs, is launched in mid-air, and immediately landed on the opposite bank. In this manner rivers are crossed between thirty and forty fathoms from shore to shore, at a height above the water of twenty-five fathoms." In China and Thibet there were, at an early period, suspension-bridges formed by cable of vegetable substances; but the nations of the East, after having, in the earliest times, made astonishing progress, stopped all at once in their march.

Suspension-bridges were not considered applicable to the purposes of a commercial country until within a comparatively recent period. They had been superseded by substantial structures, in which utility was joined to magnificence; but these, as they could not always be carried over turbulent streams, did not satisfy the ever-active wants of an industrious people. About a century ago, a bridge of iron-wire was suspended over the Tees, at Winch, near Durham, which served for foot-passengers. The principle of suspension-bridges was naturalized in England, but their utility was not in reality much greater than the frail constructions of South America, or Eastern Asia. "It was just," observes Dapin, "that this noble application of art should be first adopted on our continent by the nation which had surpassed all others in the execution of those great works in which man was the principal element;" and here now only required minds whose genius was fitted to direct the suspensive principle of bridge-building on a scale commensurate to the wants of the time. These soon arose: the Menai Bridge is one of the

most magnificent specimens of engineering talent yet in existence. It was constructed under the direction of the late Mr. Telford. In 1815, this gentleman was surveying the improvements which could be effected on this extensive line of roads from London to Holyhead, —the point of the Welsh coast nearest to Ireland. Holyhead is situated in the island of Anglesea, which is separated from Caernarvonshire by a celebrated strait, or arm of the sea, named the Menai, through which the tide flows with great velocity, and, from local circumstances, in a very peculiar manner. The intercourse of the inhabitants with the opposite portion of Wales was thus circumscribed. There were five or six ferries, but the navigation was often difficult, and sometimes dangerous. One of the staple productions of the island is cattle, and they were generally compelled to swim across the Strait. The importance of obtaining more rapid means of intercourse with Ireland occasioned Mr. Telford strongly to direct his attention to the possibility of throwing a bridge across the Menai. The obstacles were a rapid stream with high banks. To have erected a bridge of the usual construction would have obstructed the navigation; besides, the erection of piers in the bed of the sea was impracticable. Mr. Telford therefore recommended the construction of a suspension-bridge, which was completed in 1826. "The bridge is partly of stone and partly of iron, and consists of seven stone arches, exceeding in magnitude every work of the kind in the world. They connect the land with the two main piers, which rise 53 feet above the level of the road, over the top of which the chains are suspended, each chain being 1,714 feet from the fastenings in the rock. The top-masts of the first three-masted vessel which passed under the bridge were nearly as high as those of a frigate, but they cleared twelve feet and a half below the level of the roadway. The suspending power of the chains is calculated at 2,016 tons, the total weight of each chain is 121 tons.

"This bridge occasioned Mr. Telford more intense thought than any other of his works. To a friend, a few months before his death, he stated that his anxiety for a short time previous to the opening was so extreme that he had but little sound sleep; and that a much longer continuance of that condition of mind must have undermined his health. Not that he had any reason to doubt the strength and stability of any part of the structure, for he had employed all the precautions that he could imagine useful, as suggested by his own experience and consideration, or by the zeal and talents of his able assistants, yet the bare possibility that some weak point might have escaped him and their vigilance in a work so new, kept the whole structure constantly passing in review before his mind's eye, to examine if he could discover a point that did not contribute its share to the perfection of the whole."

The idea and execution of chain suspension piers is due to Captain Brown. They are of great value in ports where ships are unable to approach the shore for a considerable distance, in embarking or disembarking troops and baggage, and in facilitating the arrival and departure of passengers. The chain-pier at Lerb was constructed by Captain Brown in 1822. In order to reach, from the shore, the place in the Forth where steam-boats and other ships could keep afloat at high or low water without danger, and in very bad weather, it was necessary to advance 233 yards into the reckoning, the distance from the high-water mark on shore. To fill up this long space, three arches of suspension chains were formed, each having 200 feet in span; thus the pier is held by four supports only, — one on shore, and three upon piers in the middle of the sea. In order to try the power of the chain pier,

* 'Repository of Arts' for October, 1834, to which article we are also indebted for some of the subsequent details.

Captain Brown loaded it with 210 tons which he suffered to remain a considerable length of time, notwithstanding the casual burden occasioned by passengers, and the shaking produced by their movement. Such a fact affords a satisfactory proof of the solidity of the system on which the pier was constructed. The Brighton chain-pier is on a larger scale than that at Louth, being composed of three inverted arches, each 220 feet in span; its breadth is 12 feet.

In France it has been proposed to convey water across narrow and deep valleys by suspension canals, instead of those aqueducts with lofty stone arches, which are so expensive in their construction. On the estate of M. de Chabrol, there is a small aqueduct of one pipe supported by suspension chains.

Mr. Telford, the engineer under whose directions the Menai Bridge was constructed, was distinguished in this or any other country for the number and importance of his public works. There is scarcely a county in England, Wales, or Scotland, in which they may not be pointed out. The Conway Bridge, the Caledonian Canal, the St. Katherine's Docks, the Holyhead roads and bridges, the Highland roads and bridges, the Clirke and Post-y-Holte aqueducts are the works of his genius and ability. The Menai Bridge will probably be regarded as the most striking monument of his fame. In the construction of the Caledonian Canal he successfully contended with immense obstacles; but he was accustomed to set a higher value on the improvements which he effected on the Holyhead Road than on any other of his works. Mr. Telford was born in the parish of Westerhill, in the county of Dumfries, in the year 1757. At the age of fourteen he was apprenticed to the trade of a mason, and, until

1783, he continued to be employed in house and bridge building in his native district of Eskdale. Having then been taught architectural drawing he came up to London, and was for some time employed at the great square of public-offices at Somerset House: gradually he rose from the stone-mason and builder's yard to the head of his profession. Though all his conceptions were vast, yet to magnificence he knew how to join beauty and elegance. When at the highest point of his fame, his conduct towards the junior members of his profession was marked by great kindness and liberality, and to the latest period of his life he was fond of the society of young men who delighted in learning, encouraging them to pursue their studies in the manner best calculated to insure eminence in their respective avocations. He was a great reader, and by self-instruction acquired a knowledge of Latin, German, French, and Italian. He generally retired to bed before twelve, and read himself to sleep; rose at seven, and finished breakfast before eight, at which hour he entered his office for business; and to his punctuality he no doubt owed some of his great success in life. Mr. Telford was never married. For some time he had been gradually withdrawing from his professional duties, and chiefly occupied himself in preparing a detailed account of the great works which he had planned and lived to see executed. The writer in the 'Repertory of Arts' states, that the manuscript of this work was completed a few years before his death, which took place on the 2nd of September, 1834; and on the 10th his remains were deposited in Westminster Abbey. Like Arkwright and Watt, his genius was one peculiarly adapted to the country of his birth; like them he added to its resources, and increased the means of its wealth and happiness.



[Menai Bridge.]

THE PENNY MAGAZINE

OF THE

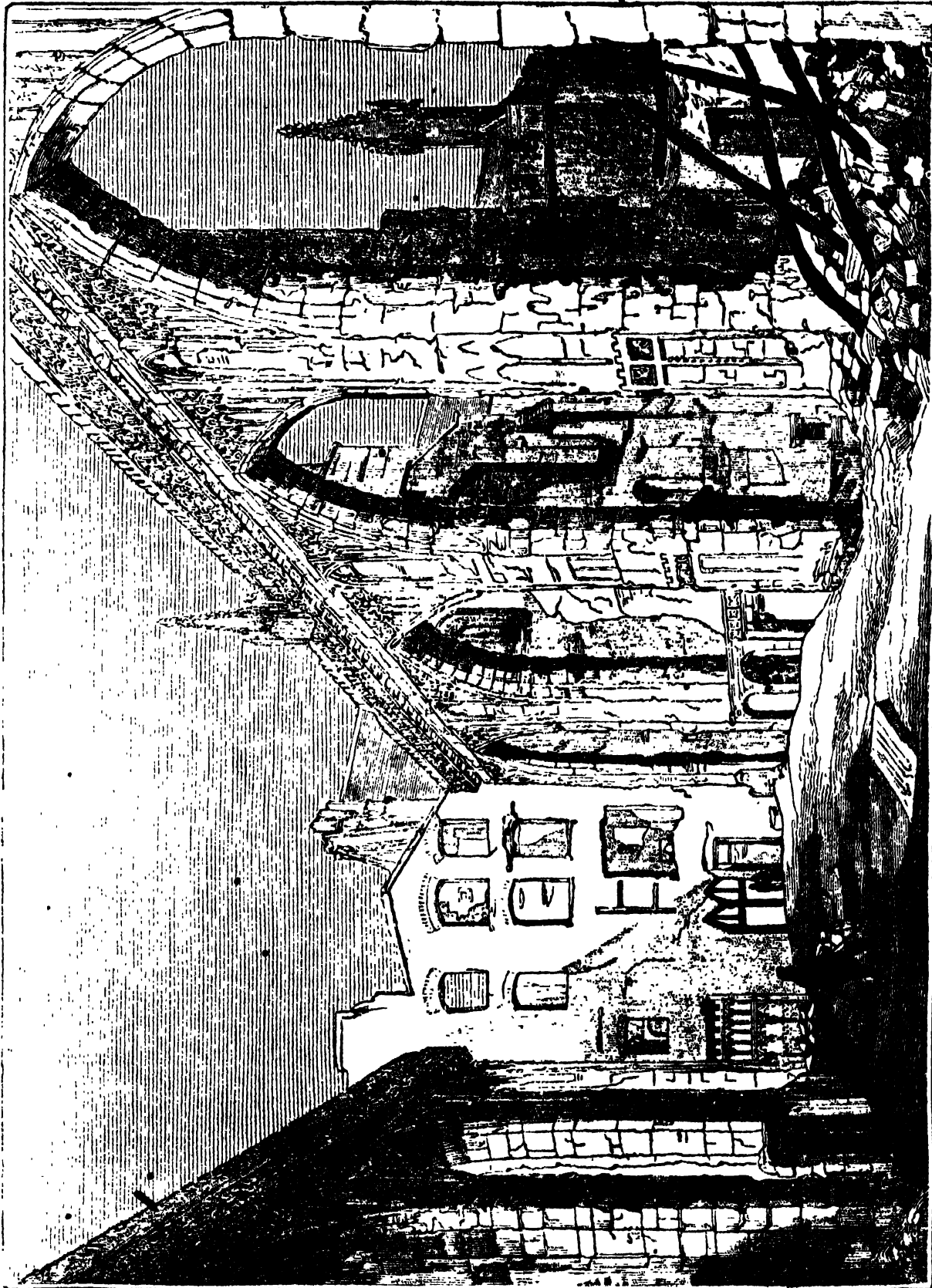
Society for the Diffusion of Useful Knowledge.

[68.]

PUBLISHED EVERY SATURDAY.

[NOVEMBER 15, 1834.]

THE HOUSES OF PARLIAMENT.—No. I.



[Ruins of St. Stephen's Chapel.]

THE destruction of buildings which have been the scene of so many memorable events and circumstances as the Houses of Parliament, seems to render it desirable that we should more promptly and largely bring the whole subject before our readers, than we should perhaps judge expedient on an occasion of less interest. We therefore propose to devote the greater portion of several consecutive Numbers of the 'Penny Magazine' to the accomplishment of this object. At present we shall endeavour to trace very briefly the steps by which parliament became localized at Westminster, and then proceed to furnish a short description of the buildings whose names have become so familiar to our readers in descriptions of the late calamitous fire. We shall reserve for future Numbers statements of the scenes and circumstances which render those buildings venerable. We shall then proceed to notice the ancient adjoining buildings, and conclude the series with a statement of the plans which have on different occasions been suggested for the improvement or reconstruction of the Houses of Parliament. For it has long been apparent that the apartments occupied by the legislature, particularly the House of Commons, had ceased to be suitable for the purposes to which they were applied; and hence various plans have, in the course of the last century, been proposed for effecting that which the destruction of the two houses now compels to be no longer postponed. In this part of our subject we shall find it advisable to describe the two principal buildings which have been erected in modern times for the use of large deliberative assemblies, namely, the Chamber of Deputies at Paris, and the House of Representatives at Washington.

The word "parliament" is much more modern than the existence of legislative assemblies in this country. The term is manifestly derived from the French, and was, in France, first applied to general assemblies of the state in the reign of Louis VII. The first use of it in this country, according to some authorities, occurs in the preamble to the statute of Westminster, 3 Edward I., A. D. 1272; but Coke contravenes the statement we have just made as to the antiquity of the term; and says repeatedly that the word "parliament" was used in the reign of Edward the Confessor. Be that as it may, it is certain that assemblies, analogous to those which were afterwards called "parliaments," existed in very early times under the Saxons, although there does not appear to have been any representative system approximating to that of the present House of Commons until "some years after the Conquest"; or, to speak more definitely, until the reign of Henry III. The Saxons, to whom we are indebted for the principles of our most valuable institutions, brought into this country the custom, common among all the German nations, of debating and concluding all affairs of importance in great councils of the people.

But although the antiquity of parliaments in this country is apparent, it is by no means equally clear how these assemblies were composed; and it is particularly difficult to discover whether the commons did in any way partake in these deliberations. All that we distinctly know is, that the principles at least of the existing parliamentary constitution were marked out as early as the reign of King John, who, in the Great Charter, promises to summon all archbishops, bishops, abbots, earls, and greater barons, personally; and all other tenants in chief under the crown by the sheriff and bailiffs; to meet at a certain place, with forty days' notice, to assess aids and scutages when necessary. It is also certain that the representative system for the Commons was in actual operation in the following reign; for there still remain writs of the date of 1266

• Hume,

to summon knights, citizens, and burgesses to parliament. These are tangible facts; but it is proper to add, that writers of some authority think that the Commons were first called to parliament in the reign of Henry II., or even of Henry I.; while others, among whom is Sir Edward Coke, contend that the Commons of England had always a share in the legislature, and a place in the great assemblies, although not upon the present footing, as forming a distinct house and as composed of knights, citizens, and burgesses.

However constituted, parliament does not appear to have obtained a local habitation until the latter end of the reign of Edward III. In earlier periods, the "king's great council" assembled wherever the court happened to be at the time; and as the monarchs of those days led a rather erratic life, it does not often happen that two parliaments were successively held in the same place. The assembly appears to have been usually accommodated in an apartment of the royal residence, and sometimes, in the absence of other accommodation, in a church, or in a field. By the time that the meetings of parliament had come to be more regular than they had formerly been, and its business more uniform and complicated, Westminster had become the ordinary residence of the court, and, consequently, it also gradually became the seat of the parliament; and after it had grown somewhat settled there, it was doubtless found that the conveniences there specially provided for the assembly, and the accumulation of its records, journals, and documents, rendered it more eligible that the king should join his parliament at Westminster, than that the parliament should meet the king at York, Coventry, Oxford, Nottingham, or wherever else he might then be holding his court.

The first parliament held at Westminster after the Conquest was in 1189, the first year of the reign of Richard I. It was an assembly of "bishops, earls, and barons," convened by that monarch for the purpose of considering the propriety of acceding to an invitation of the King of France, who had sent an ambassador to notify that he and his nobles had determined to embark in the enterprise of delivering the Holy Land from the hands of the Saracens, and inviting Richard and his peers to concur in this sacred undertaking. The assembled nobles very readily agreed to the proposal: they assumed the Cross, took the customary oaths of Crusaders upon the spot, and not long after they left England to fulfil their vows. After this transaction, thirty six years passed during which parliaments were held at Nottingham, Lincoln, Oxford, St. Paul's Cathedral, Runnymede, London, Northampton, and then again at Westminster. This was when Henry III. kept his Christmas there, in 1225, and convoked an assembly of the clergy and laity, in which he granted two charters of a similar tenor with those of King John. From that time forward parliaments were held with increased frequency at Westminster. In the reign of the same king, nine were held in Westminster and an equal number in London; and as these together formed two-thirds of the parliaments held during this long reign, this alone would show how much more exclusively than in former times the present metropolis had become the seat of the court and parliament. The latter part of the reign of Edward III. may be mentioned as the period since which the sittings of the great national council have been almost exclusively holden at Westminster. Since the termination of that reign, now upwards of 450 years since, not more than fourteen parliaments have been holden out of Westminster, whilst in the two preceding reigns alone more than an equal number were held in other places.

Having thus traced the parliament to Westminster, it becomes desirable to go back to consider how that city became entitled to the distinction of entertaining

the great council, and what accommodation for its sittings it could then and did afterwards furnish.

The Abbey at Westminster formed the nucleus, not only of the ancient public buildings assembled in its vicinity, but of the city to which it gives name. The sanctity, extent, and wealth which the establishment attained, naturally drew together a large body of religious men; and gradually induced the tradesmen and others, who obtained their living by supplying the wants or luxuries of the monastery, to establish their shops and houses in the vicinity. To the same source the original establishment of the court at Westminster, and the consequent erection of the offices of government is to be attributed. Canute, the Dane, is the first king who is mentioned as having had a residence at Westminster, and many reasons might be supposed to induce that monarch, particularly in his latter days, when the clergy acquired much influence over his mind, to fix his abode in the vicinity of the minster. The building in which Canute had resided, was, it appears, destroyed by fire in the reign of Edward the Confessor; and as the latter prince is known to have founded a palace at Westminster, it may be presumed to have occupied the site of that which had been burnt. The religious tone of Edward's mind, which led him to enrich the Abbey with munificent endowments, and thoroughly to renovate and improve the building itself, might alone have led him to prefer the vicinity to any other for the site of his new palace. Accordingly, the structure (as built by him, and enlarged by subsequent monarchs) stretched along the bank of the Thames, and not only occupied the site of Westminster Hall, the Courts of Law, the Houses of Parliament, and the adjacent buildings, but also included the space now called Old Palace Yard, with part of Abingdon Street. The palace was much enlarged to the north by William the Conqueror, and still more by his son Rufus, who built Westminster Hall as the public banquetting-room of the palace. A relic of its original use is still preserved in the existing custom of holding the coronation feasts within its walls. For an account of Westminster Hall we may refer the reader to No. 19 of the 'Penny Magazine,' while we proceed to state that a chapel to the palace was built by King Stephen at the south-east angle of the hall, and at the north end of the palace, and dedicated to St. Stephen the proto-martyr. This small structure, as rebuilt by King Edward III., inclosed the House of Commons which has recently been destroyed. Towards the end of the reign of Henry III., the palace of Westminster, with the chapel of St. Stephen, suffered much from fire. The damage to the former was soon repaired, but the restoration of the chapel occupied two years. In the following reign, in the year 1299, another fire committed much devastation; not only was great part of the palace consumed, but the flames, being impelled in that direction by the wind, fired the abbey, which sustained considerable damage. The damages were partially repaired, but in the following period of foreign war and domestic trouble, the restoration of the chapel was neglected until Edward III., in the year 1347, found it advisable to rebuild it altogether. The new structure was in a style more beautiful and enriched than that of the building which preceded. The king erected the chapel into a collegiate establishment, with a dean, twelve secular canons, twelve vicars, four clerks, six choristers, a verger, and a chapel-keeper. The following year the king, by letters patent, endowed the chapel with a great house in Lombard Street, certain advowsons in Yorkshire, and an annuity out of the treasury, to make up, with the produce of the above properties, the sum of 500*l.* a year, until he should have an opportunity to settle on the establishment an estate of equivalent value. He afterwards endowed the chapel with other properties,

privileges, and exemptions, so that at the suppression of monastic establishments, when this chapel was surrendered to the crown, its annual revenues were found to amount to 1085*l.* 10*s.* 5*d.*,—a very large sum at that time for so small an establishment.

The palace of Westminster continued to be the principal residence of the court until the fourth year of Henry VIII. (1512), when a third and terrible conflagration effected so complete a destruction of the palace, that the king, instead of incurring the expense of its restoration as a royal residence, removed his court to Whitehall, the town residence of the Archbishops of York, which had been greatly improved by the taste and magnificence of Wolsey, of whom it was purchased by the king.

It appears to have been in an apartment of this palace, the history of which we have thus detailed, that the earliest parliaments at Westminster were holden. We are not precisely informed in which apartment of this extensive fabric the early parliaments were accustomed to sit; but the first accounts which afford any information on the subject mention the Hall, which permits us to conclude that the assembly met in that noble room from the very first. Indeed it seems doubtful whether, until the parliament became divided into two houses, there was any other apartment of the palace which could afford sufficient accommodation; for it appears from Stow that, when the original hall erected by Rufus was taken down and rebuilt in the reign of Richard II., a temporary building of timber was run up in Palace Yard for the use of the parliament. This would hardly have been done if any other apartment existed in which that council had been used to assemble, or which could have afforded the accommodation it required.

It has been already intimated that when the Commons first obtained a place in the legislature, they formed but one assembly with the Peers. The separation is said to have first taken place in the year 1377, when the Commons removed to the Chapter-house in the cloisters of the adjoining Abbey, in which they continued to hold their sittings until the time of Edward VI. This king, soon after the sequestration of the revenues of the collegiate establishment of St. Stephen's, assigned the chapel to their use as a place of assembly, and since then the Commons of England have always held their sessions in that building, with the exception of one or two parliaments held at Whitehall and two at Oxford. The Lords appear to have retained the use of Westminster Hall after the separation from the Commons; and we cannot learn with precision when they first began to occupy the apartment which formed the old "House of Lords."

It now remains that our readers should be made more particularly acquainted with the buildings, as such, whose appropriation we have thus described.

THE HOUSE OF LORDS.—As a building, this was much less interesting than the House of Commons. Scarcely any part of it could be called ancient, in consequence of extensive exterior and interior alterations. Indeed, the very site of the late house is different from that of the old House of Lords, in the cellars of which the Gunpowder Plot was to have taken effect, and which adjoined the Painted Chamber on the south. The recent House was formed, in 1800, out of the old Court of Requests, which is considered to have formed the banquetting-room of the old palace previously to the erection of the Hall by Rufus.

Notwithstanding the great alterations and improvements which the House of Lords had of late years undergone, the exterior appearance of neither house of parliament was such as seemed to befit the legislature of a great people; and, upon the whole, what Ralph said, about a hundred years since, of these buildings, in

his rather bitter 'New Critical Review of the Public Buildings, Statues, and Ornaments in and about Westminster,' might have been applied to the same structure, with little qualification, in the year 1834:—"Nothing can be more unworthy of so august a body as the Parliament of Great Britain than the present place of their assembly: it must be, unquestionably, a great surprise to a foreigner to be forced to inquire for the parliament house even at the doors; and, when he found it, to see it so detached in parcels, so encumbered with wretched apartments, and so contemptible in the whole." In speaking of the House of Lords, as it appeared a few weeks since, it may be said that, although it had passed through the hands of distinguished architects, its exterior was by no means remarkable for beauty, although it displayed some costly imitations of Gothic architecture. The western elevation, facing the east end of Henry VII.'s Chapel, had been, at a recent period, rebuilt, under the direction of Mr. Wyatt; and, in the opinion of Mr. Britton, it strangely contrasted by its tumescence,—we might almost say by its deformity,—with the beautifully-restored specimen of the florid style to which it was so immediately opposed. This was fronted by a colonnade, also in the Gothic style, which connected the two entrances—that for the king when he went in state to the House of Lords, and that for the Lords themselves. The royal entrance to the House was by an enclosed Gothic corridor, with a porch of the same character, leading to a staircase erected from the designs of Sir John Soane, in the years 1822-3. This staircase led to a gallery, divided by scagliola columns, of the Ionic order, into three principal compartments;—the central one lighted by a large cupola, and the others by smaller lantern-lights, which, as well as the ceiling, were highly and somewhat extravagantly enriched, producing altogether a gaudy and theatrical effect.

The apartment in which the Lords assembled did not occupy the whole of the Old Court of Requests, part of the north having been formed into a lobby by which the Commons passed to the Upper House;—the height was reduced by an elevated floor of wood over the original stone pavement. The room was of an oblong figure, and of rather less dimensions than that in which the Commons met; and, though not splendid, it was considered a very handsome apartment, certainly not very well suited to the purpose it was made to serve, but, on the whole, much more convenient than the House of Commons. It underwent considerable repair and alteration at the time of the Union with Ireland, when provision was to be made for the accommodation of an additional number of peers. One of the chief and most interesting ornaments of the interior of this apartment consisted of the fine tapestry hangings, representing the defeat of the Spanish Armada. On the occasion to which we have just adverted, these hangings were taken down, cleaned, and replaced as they lately appeared. The tapestry was judiciously set off with large frames of brown-stained wood, which divided it into compartments respectively containing the several portions of the history, or of the events of the destruction contemplated by the Spaniards on that occasion. The heads which formed a border to each design, were portraits of the several officers who at that period held commands in the English fleet. The destruction of these hangings is perhaps one of the greatest, because perfectly irreparable, losses occasioned by the late fire.

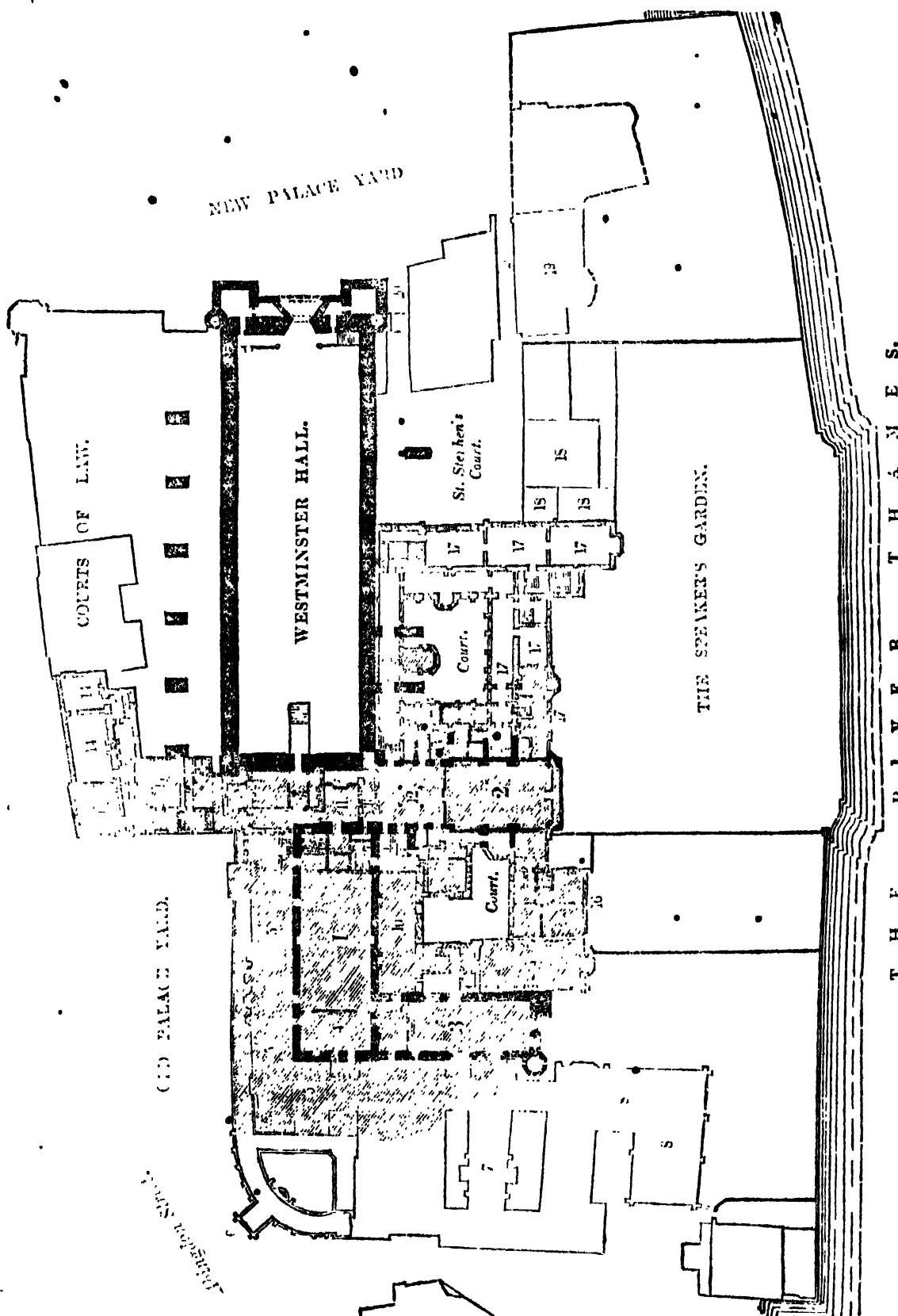
The House of Lords was fitted up anew on the accession of George IV., and among the minor alterations which then took place was the erection of a splendid new throne in the place of the elevated arm-chair from which former monarchs addressed the parliament. This throne, which perished in the late

fire, consisted of a very large canopy of crimson velvet surmounted by an imperial crown, and supported by Corinthian columns richly gilt and decorated with oak-leaves and acorns, while tridents, olive-branches, and other emblematic figures ornamented the pedestals. On the right hand of the throne was a seat for the heir-apparent, and on the left, another for the next person of the royal family. The Lord Chancellor, who is the Speaker of the House, had no chair, like the Speaker of the House of Commons, but sat on a broad seat stuffed with wool, called the "woolsack," with no support for the back or any table to lean against in front. There were two similar seats for the judges, who occasionally attend to be consulted on points of law. The spiritual and temporal peers sat, according to their rank, on benches covered with crimson baize. The archbishops, dukes, and marquesses sat on the right hand of the throne, the earls and bishops on the left, and the other peers on the cross benches in front. Across the room, at the end opposite the throne, there was a bar, outside of which the Commons stood when summoned to appear before the king at the opening and close of sessions. When the House of Lords was used as a court of justice, it was open to the public; at other times, strangers were admitted by peers' tickets. Not a great many years ago all strangers, who were only allowed to stand below the bar, were required to be dressed as for their appearance in a dining-room: boots were odious and forbidden things. These regulations were gradually relaxed; and within the last three years a gallery was erected, to which strangers of both sexes were admitted.

THE HOUSE OF COMMONS.—Before describing the appearance which the House presented previously to its destruction, and the state in which its ruins appeared after the fire, it will be best to trace such circumstances as have enabled some idea to be formed of the original beauty of St. Stephen's Chapel before nearly all its ancient magnificence was lost in its successive adaptations to the use of one branch of the legislature.

There is extant an old view from the Thames, taken before the towers of Westminster Abbey were erected. "It represents the shore as bounded by a wall from Cannon Row, beyond St. Stephen's Chapel, with trees interspersed, and the latter with pinnacled buttresses on the sides and angles, and double ranges of windows." (Malcolm's 'London.') As the House stood before the fire, the western front was the only part of the original structure that appeared. This front, which presented a beautiful pointed Gothic window, did not seem to be much improved by the coating of plaster and the pinnacles which were added by the late Mr. Wyatt. Between this front and the lobby of the House there was a small but elegant vestibule of a similar style. At each end was a Gothic door, and one in the middle, forming the passage into the lobby. On the south of the outermost wall of the chapel appeared the marks with abutments between; and beneath, some lesser windows, once used to light an under chapel.

When the chapel was originally fitted up for the House of Commons, in the reign of Edward VI., the original walls were wainscoted, a floor was laid above the level of the old pavement, and even a new ceiling was formed considerably below the old one; and in the course of time, all knowledge of the relics of early art which the walls and roof contained was completely lost. But in the year 1800 it was deemed expedient to enlarge the apartment in which the Commons met, to make room for the hundred Irish members who then became entitled to a seat in the British Parliament. In effecting this object the whole side walls were taken down, except the buttresses that supported the ancient roof, and others erected beyond them, so as to give room for one additional seat in each of the recesses thus formed



REFERENCES.

1. House of Lords.
2. House of Commons.
3. Painted Chamber.
4. King's Robing Room.
5. Rooms belonging to the Lords.
6. King's Entrance.
7. The King's Gallery.
8. Lords' Committee Rooms.
9. Commons' Library.
10. Long Gallery.
11. Outer Lobby.
12. Lobby.
13. Vote Office.
14. Commons' Committee Rooms.
15. Commons' Waiting Room.
16. Mr. Lay's House.
17. The Speaker's House.
18. ———— Stables, &c.
19. Exchange Office.
20. Gateway.

THE RIVER THAMES.

[The Houses of Lords and Commons.]

between the buttresses. When the wainscoting was taken down for this purpose, the walls were found to be covered with paintings in oil, many of which were in a high state of preservation. This circumstance having been communicated to Mr. John Thomas Smith, an artist of London, he repaired to the spot, and was so much delighted with the beautiful specimens of ancient English art which appeared before him, that he solicited and obtained permission to copy them for the purpose of engraving. The result of Mr. Smith's labours ultimately appeared before the public in 246 engravings of subjects, of which 172 no longer existed at the time of publication. There were found some pieces of sculpture, of considerable taste and beauty, and which sufficed to convey a very high idea of the sumptuousness and variety of the ornaments with which the chapel was formerly enriched. The foliage which twined around some of the columns appeared to vie in beauty with the decorations of the Corinthian capital. The interior walls, which were so profusely decorated with gilding and ornament, seemed to have been divided into compartments of Gothic but not inelegant forms, each having a border of small gilt roses, and the recesses covered with paintings. At the east end, including about a third of the length of the chapel, which part exhibited various tokens of having been once enclosed for the altar, the walls and roof were completely covered with gilt and painted decorations; and presented, even in their mutilated state, most gratifying evidence of the progress which, many centuries since, had been made in the fine arts in this country. The gilding was remarkably solid, and highly burnished, and the colours of the paintings vivid, both being apparently as fresh as in the year in which they were executed. One of the paintings, representing the 'Adoration of the Shepherds,' had merit, even in regard to the composition; and the figure of the Virgin, in particular, claimed notice for its dignity and beauty. These decorations would seem to have been the work of *impressed* artists; for there is extant an order, dated 1350, authorising the impressment of painters and others for the works of this chapel.

Without pausing to lament the destruction, provided it was not unnecessary, of these old relics,—for the time is come when the superstitious of taste, and the indulgence of even harmless fancies, must give place to practical utilities—we may mention that underneath the "House," in passages or apartments appropriated to various uses, there were considerable remains, in great perfection, of an under chapel, of curious workmanship; and an entire side of a cloister, the roof of which was scarcely surpassed by that of Henry VII.'s Chapel, in the adjoining Abbey.

The interior of the House of Commons, as it existed previous to the fire, had nothing very striking to recommend it to notice: convenience rather than ornament seems to have been the object of the government in the successive adaptations of St. Stephen's Chapel to the use of the Commons, and even the former object was but imperfectly attained. It was too small, and this defect has been very sensibly felt by the members since the additions made to their number by the Irish Union. There were galleries along each side of the House for the use of the members, and another at the end of the room, opposite the Speaker's chair, to which the public were admitted, but this gallery was not capable of accommodating more than 130 persons. These galleries were supported by slender iron pillars, crowned with gilt Corinthian capitals, and the walls of the whole apartment to the ceiling were lined with brown-polished wainscot. The Speaker's chair stood at some distance from the wall at the east end of the room: it was ornamented with gilding, and surmounted by the royal arms. At a short distance before the Speaker was a table, at which sat three clerks of the

House, and on which the Speaker's mace was laid when the House was formally sitting, and under which it was put when the House went into Committee. In the centre of the House, between the table and the bar, there was an area, in which a temporary bar was placed when witnesses were examined. The seats of the members occupied each side and both ends of the room, with the exception of the passages. The rows of seats were five, rising above each other, with short backs and green morocco cushions. The seat on the floor, on the Speaker's right hand, was called the "Treasury Bench," as the principal members of the government usually sat there; and the opposite seat was commonly occupied by the leading members of the "Opposition." No members had any particular seats, except those for the city of London, who have a right to sit on the Speaker's right hand; but of this privilege it was not usual for them to avail themselves except on the first day of a session.

It is unnecessary for us here particularly to describe the subordinate apartments of the Houses of Lords and Commons. Their number and position will be understood by reference to the plan at page 415.

Such was the state, as buildings, of the Houses of Parliament, when, between six and seven o'clock in the evening of Thursday, the 16th of October, the southwest of the metropolis was alarmed by continued and extensively-spread cries of "Fire!" followed by the rush of fire-engines and of multitudes of people towards the spot from which it arose, and which was indicated to a great distance by the deep glow in the atmosphere. That spot was the House of Lords. It was about twenty-five minutes to seven when the first alarm of fire was given, and by seven o'clock, by which time a large number of spectators had assembled, the fire was raging with great vehemence.

From the part of the building opposite Henry VII.'s Chapel, in the corner next to Westminster Hall, which may be indicated as the spot where the fire was first perceived bursting forth from the roof, the flames took three directions*—it proceeded to the body of the House of Lords, taking within its range the several apartments over the piazza facing Palace Yard, thence proceeding to the "Painted Chamber" and extending to the "Library:" all these apartments were eventually destroyed, but not completely so until about one o'clock; and even at that time the flames continued. The Library, which was a modern, large, and handsome building, was soon completely burnt, the roof falling in with an immense crash; but the collection of books, which was most extensive and valuable, was happily preserved, as, on account of improvements which were then in progress in the interior of the Library, they had previously been removed to an apartment which the fire did not reach.

The new gallery beyond the Library, built by Sir John Soane, as well as the staircase, which we mentioned in our description of the House, were saved, owing to the thick party-wall which separated the gallery from the Library. The front of the House was not so speedily consumed as the portion we have mentioned; but by nine o'clock all its apartments were in flames, and, ere long, although the exterior walls remained standing, the interior was quite burnt down, and the roof and ceiling fell, but the fallen materials continued burning like a furnace within the walls. Between ten and eleven, two great masses of the front fell in; but the flames still continued to rage, and other portions to fall, until the whole front was reduced to

* The ground-plan which we have given will enable the reader to apprehend the disposition of the buildings and to trace the progress of the flames, and supersede the explanation on the former subject which, without it, would have been necessary. The parts destroyed are indicated by black shading.

such a state of dangerous ruin that, on the subsidence of the fire, it became necessary to level it with the ground. The destruction of the modern parts of the building has revealed portions of old walls, &c., which probably formed part of the ancient palace; but the remains were of little interest compared with those of St. Stephen's Chapel, the fate of which we may now proceed to describe.

Another direction taken by the flames was still more extensively and rapidly destructive. The course was eastward towards the river, the flames spreading also to the north and south, sweeping all before them, except the strong ancient walls, even to the gardens. The numerous large rooms which formed the offices of the House of Commons were first consumed, and in these the loss in valuable books, papers, and precedents was very great. Mr. Ley's house was also destroyed; and the library of the Commons, which occupied two stories, shared the same fate. The collection of books was much more extensive than that of the Lords', and of much value. Happily, through the timely exertions of the librarians and officers of the House, with the proper assistance from the police and the military, the most valuable part of the books was removed before the fire had commenced its devastations in that quarter. The House of Commons itself was next attacked. From its proximity to the river, sanguine hopes were in the first instance entertained that its safety might be effected with less difficulty than had elsewhere been experienced. But the tide was then low, and, from the enclosed situation of the building, the fire-engines could not effectually be brought to play upon it. The great quantity of wood in the wainscoting and fittings-up of the House administered new fuel to the flames, and in an incredibly short time the whole was a mere shell,—but such a shell! The House of Commons was destroyed; but the Chapel of St. Stephen's stood in its strength and beauty, like a rock amidst a sea of fire, and broke the force of its waves, which till then had gone on conquering and overthrowing. The structure now stands as represented in our wood-cut, in a state of sufficient continuity and strength to admit of its complete restoration, if it shall be determined to restore it. There are at least two comforts in this fire, one negative and the other affirmative. It did not destroy Westminster Hall, and it did unveil St. Stephen's Chapel. This chapel is, in fact, the only object of much interest which the ruins offer, and its present state affords ample testimony to the accuracy of Mr. Smith's observations in 1800. The old walls and original proportions of the structure are now apparent, with much of the original mouldings and tracery and the carvings and paintings with which they were decorated. "It is really wonderful," says a daily Journal, "to see the sharpness and beautiful finish of the mouldings, the crockets, the embossed ornaments, and other cunning workmanship in stone, notwithstanding the violence which the chapel has suffered from ancient destroyers and modern improvers, besides having come out of the fiery furnace of so tremendous a conflagration."

From the House of Commons the fire passed on to the Speaker's official residence, which sustained great damage, though by no means to the extent which was at first apprehended; and the approach of the fire was foreseen in sufficient time to allow the removal of most of the valuable property and furniture.

The other direction which the fire took from the point of its origin was westward, along the range of buildings leading to the Commons' entrance in Margaret Street, and facing St. Margaret's Church. It consisted of Members' waiting-rooms, on the ground-floor, above which were committee-rooms, and the next floor consisted also of committee-rooms, and Bellamy's coffee-house. The whole of this range of buildings

was consumed, nothing but the walls being left by eleven o'clock. A reference to the plan will show that the Courts of Law and Westminster Hall must at this time have been in great danger. But by the incessant working of the engines, which were levelled through the window of the Hall, and from Palace Yard, no further damage was done. The papers in the Courts had been previously thrown through the windows into the street, and conveyed thence to St. Margaret's Church for safety.

When it is considered that the fire raged simultaneously in all these directions, forming one tremendous conflagration, it will be seen that Westminster Hall was in the greatest danger while hemmed in on the east side and south end by the flames. Fears for its safety were entertained from the first appearance of the fire and through its continuance, and its preservation was the great object of anxiety and exertion among all classes. There was more than one time when its destruction seemed inevitable. But its strong stone walls opposed such an effectual resistance to the consuming element, and fire-engines, which had at an early period been introduced into the body of the Hall, played through the great window with such effect upon the surrounding fire, that the only injury it sustained was in the destruction of the glass in the upper part of this window. Had the flames burst through the window, as there was much reason to dread, the roof, which is of fine-carved oak, must have been destroyed, and a structure consecrated by many historical associations would probably have become a ruin. The strong anxiety which spectators of the very humblest class in life expressed for the preservation of this historical building is highly creditable to the national feeling. The antiquities of a nation are amongst its best possessions.

Next to the preservation of Westminster Hall, the safety of the cloisters and vaulted rooms, which formed, as it were, the ground-floor of the House of Commons, was an object of anxiety to those who were acquainted with the beauty of those ancient apartments, including the Speaker's official dining-room, which lay immediately under the room in which the Commons assembled. In consequence of the strength of the arches, these were also preserved in such a state as to admit of complete restoration. The cloisters were communications between the Houses and the different arched rooms under the Commons. We indicate this now for the sake of giving completeness to our statement, but shall probably have occasion hereafter to consider somewhat in detail these and the other subordinate buildings which can properly be comprehended within the limits of the view we purpose to take.

The origin of the fire is still involved in obscurity; and the subject is in course of being carefully investigated by the Privy Council, with the view, apparently, of precluding the transmission of injurious surmises to future times, as well as now to set the public mind at rest. Many imputations and suspicions have obtained circulation; but, upon the whole, nothing has hitherto transpired to render improbable the impression originally entertained on this subject. This was, that the fire was accidentally kindled by overheating some of the flues, which set fire to the dry wood by which they were surrounded. This overheating of the flues is accounted for by the fact, that for some days previously certain subordinate officers in the Exchequer had been engaged in burning, in the buildings adjacent to the House of Lords, a collection of old documents and tallies which had become useless in consequence of the recent alterations in the manner of conducting the business of the Exchequer Office. It is supposed that in the execution of this duty the men grew too impatient and burned a great number together, by which the flues were choked, and the fire broke out in a number of places at once.



[Ruins of the Houses of Parliament, fronting the River.]

THE PENNY MAGAZINE

OF THE

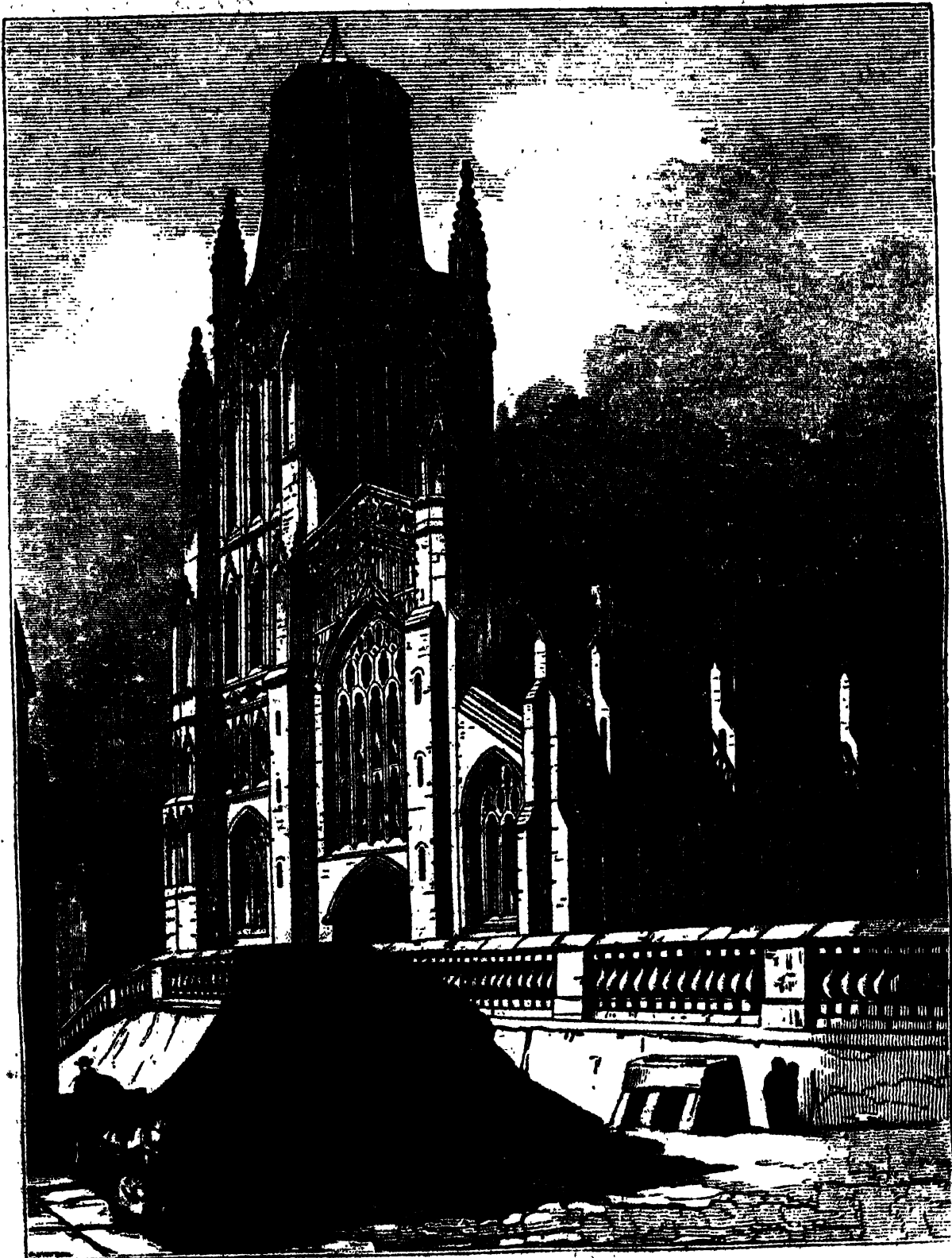
Society for the Diffusion of Useful Knowledge.

169.]

PUBLISHED EVERY SATURDAY.

[NOVEMBER 22, 1834.]

BRISTOL.



[Redcliff Church, Bristol.]

The Church of St. Mary Redcliff, Bristol, which is represented in our wood-cut, is one of the most beautiful ecclesiastical structures in England, and we shall avail ourselves of the opportunity it affords of furnishing an account of the important commercial city of which it forms so splendid an ornament.

Bristol is a city having separate jurisdiction apart from the county, situated principally in Gloucestershire, but extending into Somersetshire: in other words, Bristol stands on the river Avon, which divides the two counties, and about eight-ninths of its buildings are on the northern, or Gloucester shore. It is about eight miles from the mouth of the Avon, and at the confluence of that river with the Frome. Its situation on the Avon is thus alluded to by Spenser, in his beautiful catalogue of the British rivers, in the 'Faery Queene':—

"But Avon marched in more stately path.
Proud of his adamants,* with which he shines
And glisters wide, as also of wondrous Bath,
And Bristow faire, which on his waves he builded bath."

Bristol is one of the most ancient towns in England. By the ancient Britons it was called "Caer Oder," which appears to mean a frontier town; and it seems to have acquired its more usual ancient name of "Caer-Brito" while a protected city of the Britons under the Roman forces, which were stationed in the neighbourhood. The Saxons changed the name of the town to "Brightstow," which signifies "a pleasant place," and of which the common pronunciation "Bristow" is manifestly a contraction. The Latin writers changed "Brightstow" into "Bristolia," for the sake of euphony, and hence the modern name "Bristol." Seyer, however, in his publication of the 'Charter of Bristol City,' gives the following as the preferable etymology:—"In Welsh, Bristol is still sometimes called 'Caer Odor,' which means the 'City of the Chasm,' and it is probable that the old site to which this name was first applied was on the hill near the old camp at Cliff-town, or Clifton, where the Avon runs between the precipitous rocks of St. Vincent. When the Saxons superseded the British, they translated *Caerodor* by *Bric-stowe*, 'The Place of the Breach.' The account of its origin given by William of Worcester, on the authority of a MS., is that which was generally received during the middle ages. He says that Bristow was founded by Brennus, son of Malmuthus Dunwallo, who was King of the Britons 380 B.C. This account of the origin of the town appears to have been satisfactory to the inhabitants, for they placed over one of the gates two images of Brennus and Belinus, who are said to have reigned jointly after the death of their father. Whatever might have been its state under the early Britons, it is certain that it became a place of importance during the period of Roman occupation, for Gildas, who wrote in the fifth century, reckons "Caer-Brito" among the most important fortified towns in Britain; and in the year 620 it is mentioned by Nennius as one of the twenty-eight cities of Britain. Leland informs us that the town prospered greatly under the Saxons, and this was doubtless true; for it was first unequivocally recognised by history as an important place in the reign of Athelstan, and at the Norman Conquest Bristol was ranked after London, York, and Winchester. It now greatly exceeds the two latter cities in extent, wealth, and population, and thus acquired the name of "the second city in England." It is still sometimes thus distinguished, but younger towns have superseded its just claim to this title, unless by a quibble about the word "city;" for Bristol is certainly the second city, although, as a town, it is inferior in population to Liverpool, Manchester, Birmingham, and Leeds; and as a commercial port it is exceeded by some and rivalled by others.

* In allusion to the brilliant crystals called Bristol diamonds,

Bristol is still, however, "a place of great trade, and may still be considered in a prosperous state; but it is affected by the decline of the commerce with the West India Islands; and the rivalry and superior convenience of other ports will probably prevent its regaining the eminence it formerly attained*." Bristol appears, indeed, to have been always, according to the times, an active commercial town; and in the eleventh century it is said to have been the principal mart for the sale of English slaves of both sexes. Notwithstanding the pacific nature of its pursuits, Bristol occupies a very considerable place in the military history of the country; and, although we cannot enter much into this subject, it is desirable that the leading facts should be indicated.

Early in the tenth century, in the reign of Edward the Elder, the Danes sailed up the Bristol Channel, and ravaged the western shores of the country. Bristol suffered greatly from their incursions; and after Edward, had defeated the enemy in Wessex, among other defensive measures, he erected castles in places where they seemed to be wanting: one of these was at Bristol, and Turgot (an historian of the eleventh century, a monk at Durham, and afterwards Bishop of St. Andrew's and Primate of Scotland) says it was "the goodliest of five built on the Avon." This seems the origin of the famous Castle of Bristol. Some, indeed, consider Robert, Earl of Gloucester, the natural son of Henry I., as the founder of that structure; but it seems that he did no more than rebuild some parts, and make important alterations and improvements. As completed by him, it extended, exclusive of the outworks, 450 feet from east to west, and 300 from north to south; and it comprehended two great courts, many towers, a church, and a magnificent chapel: there was also a royal palace within the walls. Earl Robert's nephew, Henry II., was partly brought up in this castle, which, in the reign of his son, John, was annexed to the crown. This king and his son, Henry III., confirmed and extended a charter which had been granted to the city by Henry II. In the intestine commotions of these and subsequent periods the people of Bristol were generally found active partisans against the existing government, which sometimes endeavoured to subdue their spirit by severe proceedings, and sometimes endeavoured to conciliate them by the grant of immunities and privileges. They besieged Edward I., while Prince Royal, in the castle, from whence, however, he effected his escape. Edward III. constituted Bristol a city and county in itself; and in the next reign the people opened their gates to Henry of Lancaster, and assisted him in storming the castle, in which many of King Richard's friends had taken refuge. In the following century the inhabitants of Bristol were warm partisans of the Earl of Richmond, afterwards Henry VII.; and at the Reformation, in the following reign, Bristol was made the seat of a bishopric. The castle appears to have somewhat fallen to decay at the commencement of the seventeenth century; and Charles I., on the application of the corporation of Bristol, made a grant of the whole to that body, receiving in return a consideration of 959*l*. The king had cause to repent of this bargain on the breaking out of the civil war, when the castle was repaired and garrisoned by the forces of the Parliament. It was, however, ultimately taken by storm, although with great loss, by Prince Rupert; but after the battle of Naseby it was retaken by Fairfax; and so important was this place considered, that this event is said to have given the final blow to the royalist party, and to have hastened the king's submission. When Cromwell became Protector he gave orders that the Castle of Bristol should be demolished, and so well were his orders executed, that scarcely any

* 'Boundary Reports,' Part IV., p. 219.

vestiges are now remaining. Happily for the town, its military history terminated with the destruction of its castle; and the most serious (though not the only) disturbance which its peace has since undergone, occurred at a very recent period. This was in September, 1831, when an alarming riot took place during the ferment occasioned by the rejection of the Reform Bill in the House of Lords,—the immediately exciting cause being the entrance of Sir Charles Wetherell into the city as recorder. The gaols were broken open and burnt,—the Mansion House and Custom House destroyed,—the toll-gates pulled down, and many private houses plundered and set on fire. From two to three hundred lives were lost, either in the flames, or by the endeavours of the military to repress the tumult.

The town of Bristol, in its most extended sense, includes many streets and buildings which lie beyond the boundaries of the "city," and which contribute 8072 houses to the number of 17,842, of which the town, as a whole, consists. These suburban portions have been included within the line drawn by the Boundary Commissioners for the purposes of election; so that the town of Bristol may be stated to extend, from east to west, two miles and five furlongs, and from north to south, three miles and five furlongs; while the diameter of the "city" alone, the form of which approaches to that of a square, is about one mile and four furlongs. The "city" covers a surface of 1840 acres: the area within the new boundary cannot be stated with precision, but does not appear to come short of 10,000 acres. The highest of the hills on which the city stands are St. Michael's and King's Down, which are 200 feet above the lower parts of the town. The streets in the ancient parts of the city are narrow, with lofty houses of wood and plaster. The fronts of these houses formerly projected in the usual style of old street architecture; but, of late years, many of the streets have been widened and improved, particularly those which lead to the bridges over the Avon and the Frome. The buildings in the more modern parts of the town are elegant and spacious; this is particularly the case with the western suburb of Clifton, which is joined to the city by a continuous line of buildings. "It constitutes," says the 'Boundary Report,' "the most beautiful and ornamental part of the town, and is inhabited by many of its most opulent citizens." The buildings in the external and suburban parts of the city are composed entirely of brick and stone; the use of wood, with which the old buildings are chiefly constructed, having been prohibited by Act of Parliament. The streets are now in general well paved, with smooth side-paths for foot passengers. The greater part of the town is lighted with coal-gas; but some of the shops, and the interior of many private houses, are lighted with oil-gas.

The public buildings of Bristol which more particularly claim our notice are the Cathedral, and the Church of St. Mary Redcliff. The present Cathedral is only a part of the original building, which was the church belonging to the Abbey of St. Augustine, founded, in the reign of King Stephen, by Robert Fitzharding, the ancestor of the Berkeley family, whose monument is still preserved within it. At the dissolution of the monastery, in the reign of Henry VIII., the church was partly demolished; but when the king had determined to create six new bishoprics, of which Bristol was one, and was informed that enough of the building remained to form a cathedral, he put a stop to the work of destruction. The structure, as it now stands, consists of the transept, the eastern part of the nave, and the choir of the original building. The length of the whole is 175 feet, the breadth of the transept is 128 feet,—the breadth of the nave and aisles is 73 feet, and the height of the tower is 140 feet.

This tower, which, as usual, stands at the western end of the building, is of a large square structure, highly ornamented, and crowned with battlements and four pinnacles. The roof of the church is beautifully arched with stone, and it is remarkable that the two side aisles are of equal height with the nave and choir. There are some ancient painted windows, and many of the monuments are interesting as memorials of persons cut off in the prime of life while on a visit to the neighbouring waters: among these are Mrs. Draper, the "Eliza" of Sterne; and the wife of Mason, whose epitaph on his lost partner is well known.

We now come to the fine structure represented in our wood-cut. "The Church of St. Mary Redcliff," says Camden, "is like a cathedral, and on all accounts the first parish church in England." It was commenced, in the year 1249, by Simon de Burton, who was six times mayor of Bristol; but it was not completed until 1376, and was then celebrated for its beauty throughout the country. The tower and spire were at first 250 feet high; but in 1445 a dreadful storm destroyed part of the spire, and considerably damaged the church. The damage to the church was repaired by William Canynge, or Canning, five times mayor of Bristol, and whose name occupies so prominent a place in the Chatterton controversy: the spire, however, was never restored. The church is built in the form of a cross; and the nave, which rises above the aisles in the manner of a cathedral, is lighted by a series of lofty windows on each side, and is supported by flying buttresses. The tower is large, and, with the remaining part of the spire, richly ornamented with carved work, and with niches and statues. The principal entrance to the church is from the west front; but there are porches to the northern and southern sides of the church, the interior to the former of which possesses much beauty. It was over this porch that the room was situated in which Chatterton, whose father was sexton of the church, pretended to have found the poems which he attributed to Rowley. Although a massive building, yet, from its loftiness, and the peculiar beauty of its masonry, it has a light and airy appearance both without and within. The roof, which is nearly 60 feet in height, is arched with stone, and ornamented with various devices. The length of the church is 239 feet; that of the transept 117 feet: it is remarkable that the transept consists of three divisions or aisles, like the body of the church, and the effect thus produced is fine and striking, when the spectator places himself in the centre and looks around him. The breadth of the nave and aisles is 59 feet; the height of the nave is 54 feet, and of the aisles 25 feet. There are 15 other parish churches in Bristol, besides 5 chapels of the Established Church. There are about an equal number of places of worship for Dissenters, Roman Catholics, and Jews: some of the churches are fine structures.

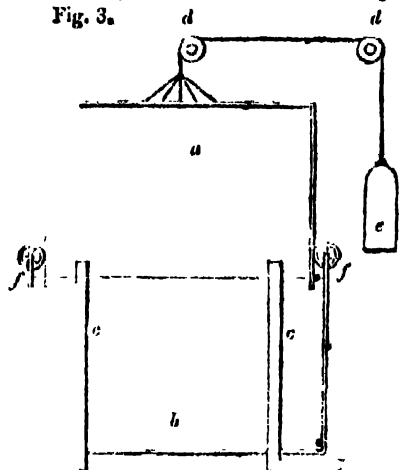
[To be continued.]

Importance of accuracy in Accounts.—It is to be hoped that there are not many characters cast in the same mould as a tradesman in a provincial town, whose real name we shall suppress under the descriptive sobriquet of "Jamie Post-hume." Whenever a person of any consideration in his neighbourhood happened to die, Jamie was in the constant habit of sending a bill to the executor for groceries, linens, candles, or other articles in which he dealt. For want of accurate accounts among the gentry, this source of income was found so abundant, that the half-uttered suspicions of some, and the open reproaches of others, were unable to put a stop to Jamie's favourite fraud, by which he taxed the whole vicinity, offering them the alternative of a law suit if they refused to pay him tribute. At length he was effectually arrested in his career by a gentleman, who, after commencing his will with the customary invocation, proceeded to say,—"*Imprimis*—I owe Jamie Posthume—nothing!"

during that hour; but if the card, during that time, had moved forward by the action of the gas on the meter, the pencil would have traced a curve, wider or narrower as the card had moved more or less. This curve shows the quantity made every hour until the card is covered, when it must be taken out and a clean one put into its place.

The gas when measured goes to the gasometer. This word properly means gas-measurer; and is, therefore, an improper term for a vessel which is merely a gas-holder. But such an instrument having been long employed for measuring as well as holding gas, before its present use as a holder of coal-gas, it has retained its old, and at that time its appropriate, name*. The gasometer is a very

Fig. 3.

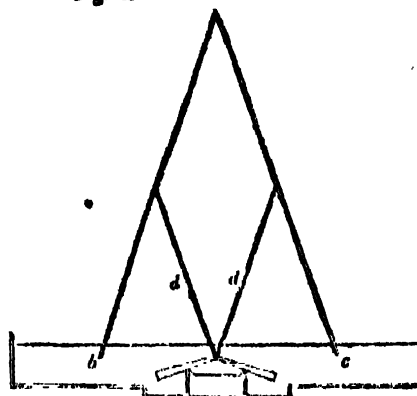


large cylindrical vessel, *a* (Fig. 3), covered at the top, and open at bottom, like a tumbler turned upside down; it is placed in a tank, or pit, *b*, filled with water, just large enough to allow it to slide up and down, where it is suspended by a chain which runs over two pulleys, *d*, *d*, and a weight, *e*. These chains and

weights are dispensed with in very large gasometers; for the weight of a hollow cylinder, whose sides are of a certain thickness, does not increase in the same proportion as its capacity increases: when it reaches a certain size, it will therefore remain suspended of itself, and above that size it will require to be kept down by a weight placed upon it. Two pipes, *c*, *c*, enter the gasometer through the bottom of the tank, passing through the water, above which their orifices rise. One of these pipes serves to convey the gas from the works to the gasometer, and the other to carry it off when it is to be used. These pipes are usually placed side by side, but are separated in the figure for the sake of distinctness. In the figure, the gasometer is full; if, now, the pipe which has brought in the gas be stopped, the gasometer, which has risen slowly from the bottom of the tank while the gas was entering, will rise no further, but will remain in its present position until the gas is wanted. When it is wished to send the gas into the pipes destined to convey it to the places where it is to be consumed, the other pipe is opened, and the gasometer immediately begins to sink, pressing the gas in its descent through an immense range of pipes, often reaching many miles; and it is a curious fact that any increase or diminution of pressure is instantly felt at the most distant point connected with the gasometer, the light increasing or diminishing at the same moment. The enormous size of these machines, some of them capable of containing 60,000 cubic feet of gas, and measuring sixty feet in diameter, together with the expense and difficulty of digging tanks to contain them, has led to the invention of other gasometers; one of the most ingenious of which, called the "Collapsing Gasometer," was planned by Mr. Clegg, in 1817. This machine was, in principle, similar to a portulac, with the ends closed. It was placed in a shallow tank,

with its edges only a few inches below the surface of the water, and when half-full was in the position of which Fig. 4 is a section. As the gas flowed out, the sides collapsed, and the bars, or plates, *d*, *d*, prevented

Fig. 4.



from sinking lower as the gasometer closed. In this contrivance the expense of digging a tank was spared; but the great, and as it appears insuperable difficulty, of making the joints perfectly airtight, as well as some minor inconveniences, prevented its introduction. Another invention, called the "Revolving Gasometer," seems also to have fallen into oblivion; and, as far as we know, there are no gasometers now in use but those on the old cylindrical principle. This part of the apparatus is the most unwieldy of the whole, and there appear to be no means of compressing it into a smaller compass. Where many gasometers are in use, (and there are in some establishments nearly twenty), they form the most conspicuous and disagreeable objects in the building.

[To be continued.]

HOUSES OF PARLIAMENT.—No. II.

TAPESTRY OF THE LATE HOUSE OF LORDS.

In our last Number we alluded generally to the tapestry with which the walls of the House of Lords were hung, and which perished in the recent conflagration. It may be proper to state that, although etymologically the word "tapestry" may be applied to any lining for the walls of apartments, its use is more usually restricted to a sort of woven hangings of wool and silk, frequently raised and enriched with gold and silver, representing figures, landscapes, &c. Such hangings were in former times the usual linings to the walls of the principal apartments in the mansions of great people. An Eastern origin is commonly assigned to the manufacture and its application; and it is said to have been brought from the Levant by the Crusaders. This seems to be confirmed by the fact, that the early manufacturers were called *Sarazins* or *Sarazinians* by the French. Guicciardini, however, claims it as an European invention; and if the Bayeux tapestry was really the work of the Conqueror's consort and her ladies, a kindred art must indeed have acquired much perfection in Europe before the time of the Crusades. The fact seems to be that hangings of needlework were in use long before the loom was applied to furnish the same article with less labour and expense. Before that time, and to a smaller extent to a much later period, the working of figures with the needle formed a principal occupation among ladies of quality.

The first manufactures of tapestry that acquired reputation were those of Flanders; and they appear to have been long established in that country before they were introduced into England and France. This introduction took place in the seventeenth century—in England in the reign of Henry VIII., and in France in that of Henry IV. In both countries the art soon declined until it was revived, in France, in the reign of Louis XIV., when the French tapestry began to rival the best of the Flemish tapestries. In England the art was revived at the instance of King James I., who gave 2000*l.* to assist Sir Francis Croke in the establishment

* * At some establishments no meter is used, and the quantity manufactured is estimated by the size and fulness of the gasometer. In this case the gasometer is a gas-measurer, though an imperfect one.

of a manufactory at Mortlake in Surrey. There is extant, in Rymer's *'Fœdera,'* an acknowledgment from Charles I., that he owes the sum of 6000*l.* to Sir Francis for tapestries; and he grants to him the sum of 2000*l.* yearly, for ten years, to enable him to maintain his establishment. Previously to this time the tapestries used in this country were chiefly imported from the Netherlands; and of the perfection to which the art had there attained, the tapestry in the House of Lords was an interesting evidence. We have already intimated that it was made in that country to commemorate the defeat of the Armada, in which the Netherlands, then struggling to shake the heavy yoke of Spain from its neck, were almost as much interested as England itself. The poet Spenser, who lived at the time, gives a beautiful description of the tapestry which Britomart saw in one of the apartments of the house of Busyrane; and in the description probably had in view actual specimens of tapestry then frequently to be seen in the principal mansions of this country.

"For round about the walls yeclothed were
With goodly arras of great maiesty,
Woven with gold and silke so close and nere
That the rich metall lurked privily,
As faining to be hid from envious eye;
Yet here, and there, and everywhere, unware
It shewd itselfe and shone unwillingly;
Like a discoloured snake, whose hidden snares

Through the greene gras his long bright burnisht back declares.

And in these tapets weren fashioned
Many faire pourtraicts, and many a faire feate."

He then proceeds to describe some of the principal subjects represented, which were mostly love scenes from ancient mythology. With reference to another apartment of the same mansion, he says:—

"Much fayrer than the former was that roome,
And richlier by many parts arayd;
For not with arras made in painefull boome,
But with pure gold it all was overlayd,
Wrought with wild antickes, which their follies playd
In the rich metall, as they living were *."

As it was, this splendid tapestry to which we are particularly adverting was one among many proofs of the strong sensation which the defeat of the Armada made throughout Europe. That great event was represented in various designs, exhibiting the first appearance of the Spanish fleet;—the several forms in which it lay at different times on the English coast, or in presence of the comparatively small English force which pursued it;—the place and disposition of the fleets when engaged;—and its partial demolition, and final departure. The whole was admirably executed; and the dread that this fine work might perish through accident, or natural decay, happily occasioned the several parts to be engraved, about 100 years since, by Mr. John Pine, to whose volume, published in 1789, we shall presently turn, but think it best to introduce on account of the tapestries by the following account of the Spanish expedition, which we have abridged from the article *'Armada'* in the *'Penny Cyclopædia,'* to which we refer for more particular information than our space admits.

In May, 1588, the Spanish government had completed its preparations for the invasion of England, and the name of the "Invincible Armada" was solemnly conferred upon the naval force to which the execution of the undertaking was intrusted. It consisted, at this time, of 130 vessels: 65 of these were galleons and larger ships; 25 were pink-built ships; 19 tenders; 13 small frigates; 4 were galleasses; and 4 galleys. The soldiers on board amounted to 19,205, the mariners to 8050; of these, 3330 soldiers and 1205 mariners had been supplied by Portugal: besides which, the rowers in the galleasses amounted to 1200,

* *'Faery Queene,'* Book III., canto xi.

and in the galleys to 888. There were also on board 2431 pieces of artillery, and 4575 quintals of powder. 347 of the pieces of artillery had likewise been supplied by Portugal. Two thousand volunteers of the most distinguished families in Spain, exclusive of the sailors and soldiers already mentioned, are stated to have accompanied the expedition.* Besides this, another large military force was prepared by the Spanish governor in the Netherlands, the Duke of Parma, to co-operate with the fleet and troops from Spain. These were held in readiness in the neighbourhood of Nieuport and Dunkirk, and flat-bottomed boats were provided fit for transporting both horse and foot. The duke was thus perfectly prepared for his part of the undertaking, and anxiously waited for the Spanish fleet, persuaded that on its appearance the Dutch and English ships which cruised upon the coast would retire into their harbours.

At the time when Queen Elizabeth began her preparations, her fleet did not amount to more than thirty ships, none of them nearly equal in size to those of the enemy. Ultimately, however, the different descriptions of vessels, large and small, which formed her navy, amounted to 181 ships, manned by 17,472 sailors. The military force consisted of two armies,—one for immediately opposing the enemy, the other for the defence of the queen's person. The army appointed for the defence of the queen's person amounted to 45,362, besides the band of pensioners, with 36 pieces of ordnance. The other army amounted to 18,449; the total of both armies to 63,511, besides 2000 foot, who were expected from the Low Countries.

It had been arranged that the Armada should leave Lisbon early in May; but the admiral, the Marquis de Santa Cruz, was, at the moment of departure, seized with a fever, of which he shortly died; and the Duke de Paliano, the vice-admiral, died also at the same time. These circumstances, and the difficulty of finding a suitable successor to so able a naval officer as Santa Cruz, occasioned some delay; but at last the Duke of Medina Sidonia was appointed admiral, and Martinez de Recalde vice-admiral. The former was a person of high reputation, but of no maritime experience, which was, however, largely possessed by the latter. On the 29th of May the fleet left Lisbon; but on its way to Corunna, where it was to receive some troops and stores, it was overtaken by a violent storm, by which it was dispersed, and sustained much damage. All the ships, except four, however, reached Corunna, where they were repaired with the utmost expedition; but several weeks elapsed before the fleet was again in condition to put to sea. News of this event having reached England, with an exaggerated statement of the damage, it was concluded that the expedition was ruined for that season; and the English admiral, Lord Howard of Effingham, received orders from the government to lay up four of his largest ships and discharge the seamen. Instead of doing so, he determined to keep them at his own expense, if necessary; and in order to ascertain how the Armada was actually circumstanced, and with the view of completing its destruction, if it had suffered so much as reported, he sailed for Corunna. On the coast of Spain he soon learned the truth; and as a south wind had sprung up, he began to fear that the Armada might have already sailed for England, and therefore returned without delay to his former station at Plymouth.

Very soon after his arrival in port, Lord Howard was informed of the approach of the Armada; and the next day it was seen advancing in the form of a crescent, which extended seven miles from one extremity to the other. The precise object at which the Spanish Admiral immediately aimed remained uncertain; but it soon appeared that he intended to press up the Channel, and effect a junction with the forces assembled by the

Duke of Parma. In endeavouring to accomplish this intention, the Armada sustained much loss from the desultory and harassing attacks of the English ships which hung close upon its rear, ready to seize any advantage which accident or the inadvertence of the enemy might offer. When the Spaniards at last arrived off Calais, their admiral ordered them to cast anchor; but was soon induced, by information received from the Duke of Parma, to direct them to proceed on their course. They had already arrived in sight of Dunkirk, when a sudden calm put a stop to the motions of the different fleets for an entire day. In the middle of the following night a breeze arose, of which the English admiral availed himself by sending before it, against the different divisions of the Spanish fleet, eight vessels filled with combustible materials, which were set on fire. This threw the Spanish fleet into the greatest disorder, and Lord Howard hastened to improve this advantage by ordering a general attack the next morning. The battle which ensued lasted from four in the morning until six at night; and although the Spaniards fought with great bravery, they were able to do but very little execution against the English, while many of their own ships were greatly damaged and several of them lost. The Duke de Medina was led, by such untoward circumstances, not only to despair of success, but began to be apprehensive for the safety of his fleet. The bulk of his vessels rendered them unfit, not only for fighting, but for navigation in the narrow seas. He therefore resolved to abandon the enterprise; and feeling the difficulty of getting back to Spain by the way he came, he determined to sail northward, and return by making the circuit of the British isles.

After the fleet had rounded the Orkneys, a dreadful storm arose, in which many of the ships were wrecked on the rocks, or driven on shore, or foundered at sea; and subsequently almost equal damage was occasioned by another storm, which overtook the fleet from the west. The Duke de Medina himself having kept out in the open sea, escaped shipwreck, and arrived at Santander, in the Bay of Biscay, about the end of September, with no more than sixty sail out of his whole fleet, and those very much shattered. An account published at the time, apparently upon authority, thus estimates the loss of the Spaniards upon the coasts of England and Ireland:—"In July and August, ships 15, men 4,791; sunk, &c. upon the coast of Ireland, 17 ships, 5,394 men;" making a total of 32 ships and 10,185 men.

The interest which the Netherlands felt in these events is indicated not only by the tapestry which has given occasion to this account, but by the curious fact that the medals and jettons which were struck on the occasion were entirely Dutch; none were struck in England.

The following is the title of Pine's book:—"The Tapestry Hangings of the House of Lords, representing the several Engagements between the English and Spanish Fleets, in the ever-memorable year 1588, with the portraits of the Lord High Admiral, and other Noble Commanders, taken from the life. To which are added, from a book entitled 'Expeditionis Hispanorum in Angliam vera Descriptio, A. D. 1588,' done, as is supposed, for the said tapestry to be worked after, ten charts of the sea coasts of England, and a general one of England, Scotland, Ireland, France, Holland, &c., showing the places of action between the two fleets, ornamented with medals struck upon the occasion, and other suitable devices." These charts, medals, and devices, form a very curious and interesting addition to Pine's work, in which he seems to intimate that the tapestries were executed on commission from this country; for he says,—"Our ancestors that were personally in it (the defeat of the Spanish Armada)

were so careful that it should not pass into oblivion, that they procured the engagements between the two fleets to be represented in ten pieces of tapestry, with the portraits of the several English captains, taken from the life, worked in the borders, which are now placed some in the royal wardrobe and some in the House of Lords. * * But because time, or accidents, or moths may deface these valuable shadows, we have endeavoured to preserve their likeness in the preceding prints, which, by being multiplied and dispersed in various hands, may meet with that security from the closets of the curious which the originals may hardly hope for, even from the sanctity of the place they are kept in." In another place Mr. Pine quotes Joachim de Sandrart as stating that the designs for the tapestry were executed by Henry Cornelius Vroom, "a famous painter of Haarlem, eminent for his great skill in drawing all sorts of shipping;" and that it was woven by Francis Spiring.

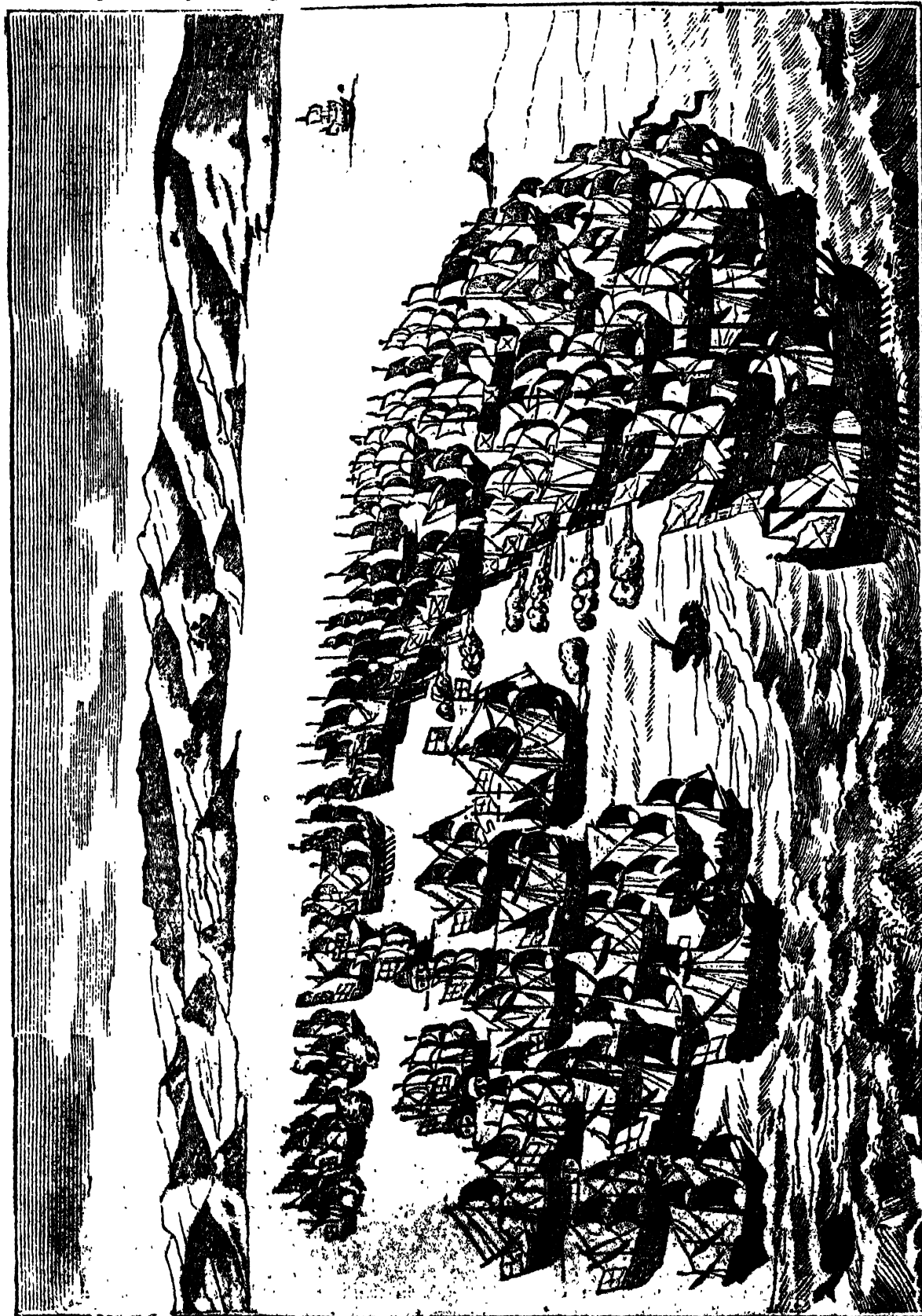
The following account of the subjects of the several pieces of the tapestry in the House of Lords, exclusive of the border decorations, is drawn from Pine's volume. No. 1. Represented the Spanish fleet coming up the Channel, opposite to the Lizard, as it was first discovered. No. 2. The Spanish fleet against Powey, drawn up in the form of a half-moon, and pursued by the English. No. 3. Represented, in the left-hand corner, the first engagements between the hostile fleets; after which the English, as represented in the other part, gave chase to the Spaniards, "who drew themselves up in the form of a roundel." No. 4. The galleon of De Valdez springs her foremast, and is taken by Sir Francis Drake, while the Lord High Admiral, with the "Bear" and "Mary Rose," pursue the enemy, who are in the form of a half-moon. No. 5. The admiral of the Guypuscoan squadron being set on fire is taken by the English, while the Armada continues its course until opposite the Isle of Portland, where another engagement takes place. No. 6. Some English ships are attacking some Spanish ones to the westward, while the main body of the Armada, in the form of a roundel, continues its course pursued by the English. No. 7. Represented a severe engagement that took place between the two fleets on the 25th of July, opposite the Isle of Wight. No. 8. The Armada, pursued close by the English, is seen sailing up the Channel, intending to stop at Dunkirk or Calais, where it was to be joined by the Duke of Parma. No. 9. The Spaniards come to an anchor before Calais, from whence they are dislodged by the fire-ships sent among them in the night. The English appear preparing to pursue them. No. 10. The Spaniards are represented making the best of their way for the Northern Seas, and are in the mean time very much battered by the English, who closely pursue them. The chief galleass is represented as stranded near Calais.

The views of the coast were, in some of the pieces, curious, interesting, and generally natural; and more attention than is usually found in the productions of the time was given to convey an idea of the different distances of the fleets from the shore in the several pieces, except when the French and English coasts were exhibited opposite to each other in the same piece, when they are always much too near. In No. 8, part of a town on the French coast was brought into view, with people hastening to the shore to witness the passing of the fleets. The two last pieces represented part of Calais in the fore-ground, with soldiers and citizens upon the walls, and various other persons outside the walls, mostly engaged in animated conversation, with the exception of one man, who, in both the pieces, was represented as occupied in angling underneath the walls. The sea was tolerably well supplied with dolphins, and other strange fish, which, in most instances, seemed to

oppose themselves, with fierce and grim looks, to the progress of the Spanish fleet.

Several of the pieces are very similar to one another, representing the Armada as proceeding in the form of a crescent, pursued by the English; and only diver-

sified by the appearance of the coast, or by the capture or burning of single vessels. Our wood-cut, which will give an idea of the style of these compositions, is taken from No. 2 in the series of pieces, each of which has just been specified.



[The Spanish Armada being pursued by the English.]

* The Office of the Society for the Diffusion of Useful Knowledge is at 25, Abchurch Lane, LONDON.—CHARLES KNIGHT, 22, LUDGATE STREET.

THE PENNY MAGAZINE

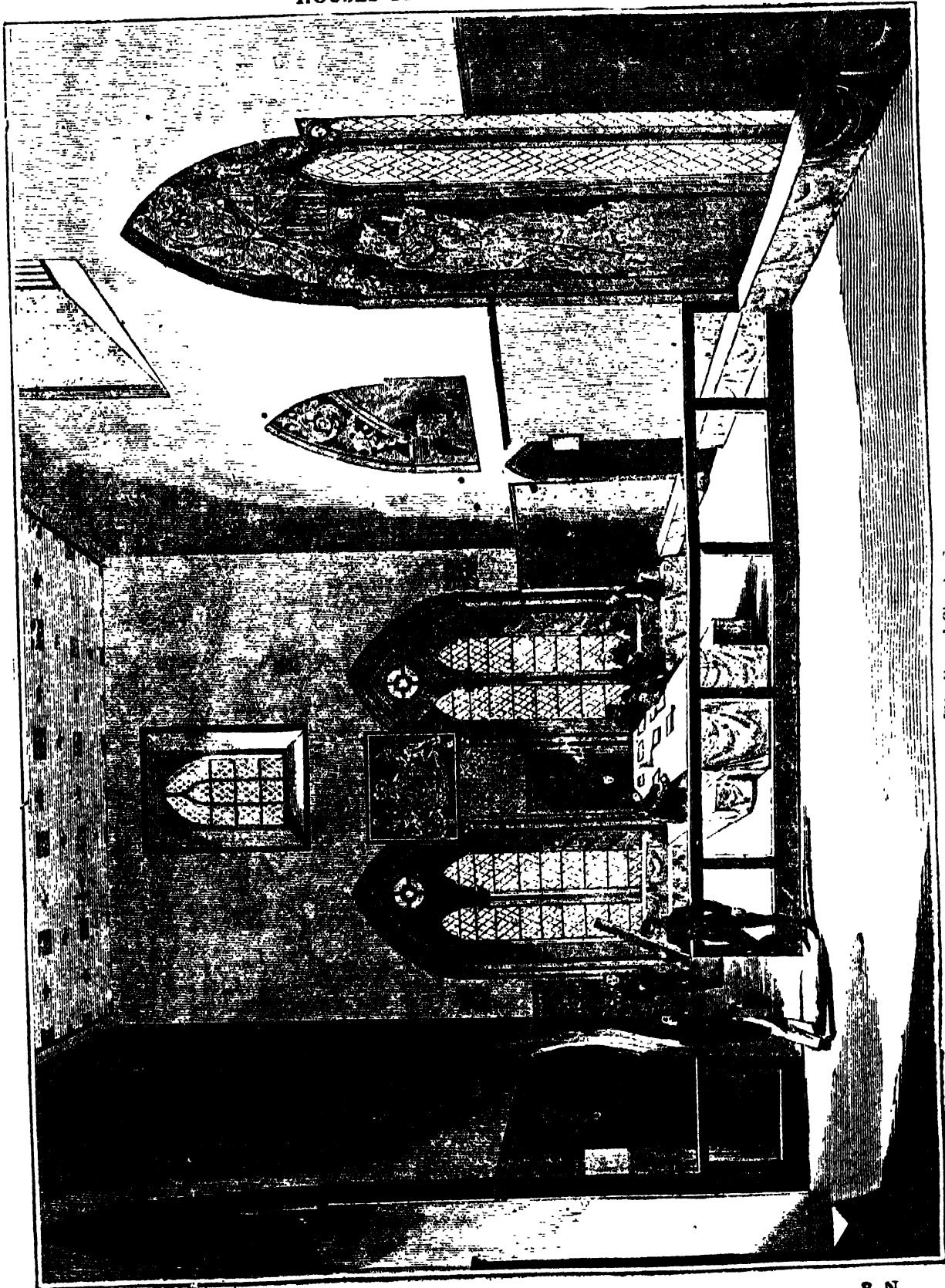
OF THE
Society for the Diffusion of Useful Knowledge.

170.]

PUBLISHED EVERY SATURDAY.

[NOVEMBER 29, 1834.]

HOUSES OF PARLIAMENT.—No. III.



[The Painted Chamber.]

THIS Chamber is commonly considered to have been as old as the time of Edward the Confessor; and tradition even states that he died there. We believe that this circumstance was first noticed by Howell in his 'Londinopolis.' The authority of this writer is not very high, and Anthony à Wood sneers at him and his book. Baker also gives the same fact, but brings no evidence in support of it on the one hand, or hints any doubt of its accuracy on the other. It is certain that Edward the Confessor died at Westminster, and probably in the palace; but it seems very doubtful that this identical chamber should have survived in its integrity all the conflagrations which have happened from the times of the Confessor until our own. However, it is certain that from very early times one chamber in the palace of Westminster was known as St. Edmund's Chamber. In the ceremonial of the marriage of Richard, Duke of York, second son of Edward IV., in 1477, a chamber is mentioned by this name; and that the Painted Chamber and no other was intended is certain; among other proofs of which, the testimony of Sir Edward Coke may be quoted. In his 'Fourth Institute' he says that the causes of Parliament were in ancient times showed in the Chamber Depeint, or St. Edward's Chamber. Burnes, in his 'History of Edward III.,' published in 1698, speaks of a Parliament as meeting in 1364 in the Painted Chamber; so that it would seem to have been thus distinguished even at that early period. No cause, however, appeared for the application of the term "Painted" to this chamber, until the commencement of the present century, when, on the removal of the old tapestry with which the walls were hung, paintings containing a multitude of large figures, and representing battles, were discovered on these walls. Neither written evidence nor oral tradition existed to denote the period when these paintings were executed; nor was there any reason, from anything that was generally known, to suppose that there ever had been any such paintings until the disclosure we have mentioned took place. They were, however, certainly as old as 1322, and probably older; for in the manuscript itinerary of Simon Simeon and Hugo the Illuminator, dated in that year, and now existing in the library of Bennet College, Cambridge, a passage occurs, quoted by Gray in a letter to Horace Walpole, in 1768, of which the following is a translation:—

"At the other end of the city (London) is a monastery of black monks, named Westminster, in which all the kings of England are constantly and in common buried; and to the same monastery is almost immediately joined that most famous palace of the king, in which is the well-known chamber, on whose walls all the history of the wars of the whole Bible are exquisitely painted, with most complete and perfect inscriptions in French, to the great admiration of the beholders, and with the greatest regal magnificence." This passage not only demonstrates that the paintings were there so early as 1322, but even indicates their subjects. There are strong reasons for considering that, at least, many of the paintings were of the reign of Henry III. There is extant an order, dated in the twenty-first year of his reign, for paying to Odo, the goldsmith, clerk of the works at Westminster, four pounds eleven shillings for pictures to be done in the king's chamber there, which very probably was this room; and if so, there are many other orders dated in this reign for the execution and payment for paintings to be done in this chamber, and other chambers of the palace at Westminster. The reader will find some further information on this subject in No. 126 of the 'Penny Magazine.'

On the discovery of the paintings in 1800, some persons had the good fortune to see them; but they were speedily covered with a coating of white-wash, which Smith, in his 'Antiquities of Westminster,' earnestly

exhorted the Antiquarian Society, but we believe without success, to exert their influence and interest in getting removed, in order to have the paintings copied for the purpose of being engraved.

The above account is chiefly taken from the work we have just mentioned; and it is worthy of being remarked, that some of the copies contain, in a plate of the interior of the Painted Chamber as it appeared before the old tapestry was taken down in 1800, one of the very earliest specimens of the then lately introduced art of lithography. The specimen is not very flattering to the new art, and it contrasts very disadvantageously in the copy now before us, with another plate of the same subject from copper. Mr. Smith also took the occasion to explain the art of which he furnished this specimen. The tone of his report was rather cold and unfavourable, and would not have excited the expectation of those results which the art afterwards realized.

The Painted Chamber has been long used as a place of conference between the Lords and Commons. In Pennant's time it made but a sorry appearance, "being hung with very ancient French or Arras tapestry, which, by the names worked over the figures, seems to relate to the Trojan war. The windows are of the ancient simple Gothic. On the north outside, beyond the windows, are many marks of recesses, groins, and arms, on the remains of some other room."

GAS.—No. IV.

[Continued from No. 169.]

IN order that the lights throughout the district supplied may burn with regular and uniform power, it is necessary that the flow of gas in the pipes which supply them should be at all times as nearly equal as possible: this would be very easy if the lights burning were always the same in number; but this is not the case: a few lamps only are used by day, as in dark passages and counting-houses; a small opening in the main pipe affords, in such cases, a sufficient supply. When night comes on a great number of lights are wanted, and the quantity which was before sufficient is now quite inadequate to the purpose. The opening in the great pipe must be enlarged, the gas will flow in greater quantity, and the small supply pipes will be filled as before. Towards midnight the lights are generally extinguished, and the few remaining would, if the same pressure continued, be filled too full, and the flame would rise too high. The opening in the main is then partly closed, the gas flows with less rapidity, and each remaining lamp still receives its proper supply. A very ingenious instrument for effecting these necessary changes was introduced in 1816 by Mr. Clegg, who named it the "governor." This instrument, with some improvement by Mr. Crossley, is given in fig. 5:

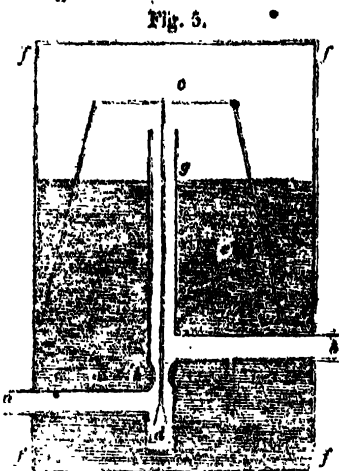
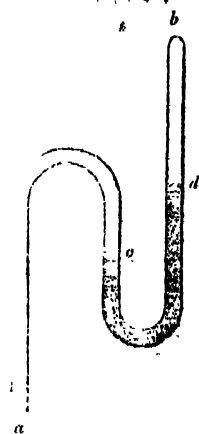


Fig. 5.
 a is a tube through which the gas enters the "governor," and b, another tube by which it is carried off. It will be observed that in its passage from a to b the gas will go through the hole h, through which a small wire passes, suspended from the inside of a bell-shaped vessel, c, and carrying a conical weight, d. The bell-shaped vessel is inverted in water within the "governor." Now suppose a full stream of gas to be admitted into the pipe a,

* 'Some Account of London, 1793.'

when few lights are wanted, the burners could not consume all the gas supplied,—the pipes would be too much filled without some contrivance to prevent this effect, and all the lights would smoke in consequence of the over-supply. This is obviated by the "governor." The pressure exerted by the too great flow of gas will cause the bell-shaped vessel, *c*, to rise in the "governor;" it will draw up with it the wire and weight, *d*, and close the hole, *f*, more or less as the pressure is more or less strong, which will effectually prevent an over-supply to the burners. When more lights are used, which will be the case as it grows dark, the pipe, *b*, will carry off more gas, the pressure will diminish, the bell-shaped vessel, being no longer kept up by it, will drop, and the weight also dropping will leave the hole, *f*, open. With this instrument the flow of gas will supply the burners equally, whatever variation (within certain limits) their number may be liable to; but it would appear that its employment has not been generally found to answer the end proposed, at least in the large way, for, instead of this "governor," men are employed in many establishments night and day to regulate the supply of gas into the main pipe by means of a valve, which they open or close as the supply is more or less wanted. That those persons may know what quantity of gas is required, a bent tube of glass, *a b*, called a "pressure gauge," is connected with the main pipe by the end *a*, and *b* is closed; a small quantity of water, *c d*, stands in the lower bend. When the pressure of gas is strong, that is to say, when few lights are burning, and consequently the gasometer forces more gas into the pipes than the burners can consume, the water in the "pressure gauge" will be forced up at *d* towards *b*; the person employed then partly closes the valve and lessens the supply of gas.



When more lights are burning the supply of gas is insufficient, and the pressure diminishes; the water then falls in the tube, and the workman opens the valve. As a check upon the persons employed in this duty, a very convenient instrument is in general use, called a "pressure indicator." This is a little gasometer connected with the main pipe, which rises and falls as the pressure in the pipe increases or lessens; a pencil is attached to the gasometer, the point of which presses against a cylinder of paper twelve inches in length, which turns slowly round by means of clock-work. The cylinder is divided by hour lines traced from top to bottom, so graduated that at twelve o'clock the line marked 12 comes under the pencil, and at one o'clock that marked 1, and so on of the others. Thus the precise moment at which any mark was made by the pencil may be known at any time. The cylinder is also divided by parallel lines all round, to show the height of the pencil, and consequently the pressure of the gas at that moment. The "pressure indicator" was first used at the Chartered Company's Gas-works in 1824.

We have now brought gas from its first impure state, as it left the coal, to the last stage of purity, when, having been accurately measured, it leaves the manufactory to be carried to its destination. The tubes which convey it are of a size proportionate to the number of lamps they have to supply; from the diameter of eighteen inches, where it leaves the largest works, to the small copper pipe which supplies a single light to a shop window. A pipe of one inch in diameter supplies gas enough to give a light equal to a hundred mould candles of six to the pound; and as a pipe of double the diameter has four times the area, it might be supposed

that one of two inches would be equal to four hundred candles. It is found, however, that a pipe of that diameter equals four hundred and fifty candles, and a four-inch pipe two thousand candles. This variation arises from the resistance caused by the sides of the pipe to the flow of the gas, which is proportionably greater in the smaller tube. The larger pipes are made of cast iron, with a socket at one end, and they are joined together by inserting the small end of each pipe into the socket of the next, and filling up the interstices with melted lead. The pipes are laid as nearly in straight lines as convenient, and a slight inclination is given to them in order that the occasional depositions of oil and tar, which will take place in the best-purified gas by long standing, may be collected in certain definite places, from whence they may from time to time be pumped away. From the mains which run under ground through the streets, smaller pipes are detached to the houses on each side the way, branching off to supply burners in the shops and other apartments.

The burners are of different shapes, and from the easy flowing of gas in any direction, they admit of greater variety than any other lamp. Various names are given to those in common use. The "Argand burner" is in shape like the Argand lamp; a cylindrical ring with ten or twelve holes of one fortieth or one sixtieth of an inch in diameter, and a glass chimney. The "cockspur" is a round head with three small holes, forming jets of light like a cock's foot. The "fan" is a spreading semicircle of small jets, and the "bat's-wing" a thin sheet of gas, produced, not by passing through holes, as in other burners, but through a narrow slit sawed half-way through a hollow globe. The turning of a stop-cock below the burner admits a greater or less quantity of gas at pleasure, from the smallest point, in which it appears like a dim blue speck, to a full stream, longer and brighter than any other lamp could produce.

It has been ascertained by experiment that the larger the light produced by a burner the less is its proportionate cost,—that is to say, if in a burner of a given size the gas is admitted so as to give a light equal to three candles, the consumption is much less than three times that of the same burner giving a light equal to one candle. In making this experiment an "Argand burner" of three quarters of an inch in diameter was used; it was supplied first with enough gas to produce a light equal to one mould candle; with this light nearly a foot and a half of gas was consumed in one hour. More gas was then admitted, until the light equalled that of four candles; and with this great increase of light the consumption of gas was under two cubic feet in the hour. Consequently the cost of light in the first instance was a foot and a half of gas per candle; and in the second only half a foot, or three times as cheap. The experiment was then continued until the light was equal to that of ten candles; when more gas was admitted the light became smoky, and the experiment was carried no farther. The following is the result of the whole experiment:—

Light produced.	Consumption of gas per hour.	Consumption of gas for each candle's light.
1 Candle	1.43 feet	1.43 feet.
4 "	1.95 "	.49 "
6 "	2.40 "	.40 "
8 "	2.95 "	.37 "
10 "	3.10 "	.31 "

All those persons who burn gas by meter are interested in the result of this experiment, if they wish to economise; they should get all the light they want from as few burners as may be convenient, and when they wish to diminish their light, this purpose should be effected by extinguishing one or more lamps instead of lowering the gas in all. In this manner the greatest light will be obtained at the least possible cost.

[To be continued.]

MADEIRA.



[Town of Funchal in the Island of Madeira, from an original Drawing.]

THE beautiful and fertile island of Madeira enjoys a situation perhaps the most desirable on the whole globe, which enables it to combine all the luxuries of climate with the comforts of civilization: there is a peculiar clearness in the atmosphere, with a transparency which seems to bring out fresh hues from every object; and the sky, of a deep and stainless blue, is unsullied by a

cloud. The air is soft and delicious, and strikes with a peculiar charm the stranger whom perhaps a few days have transferred from the gloom and chill of an English winter. But the perfection of its climate is its equability of temperature; the observations of eighteen years give for the coldest month (January), an average of 64° , and for the hottest month (August) 75° of Fahrenheit.

This and the softness of the air has caused it to be much resorted to by invalids from northern climes, more especially those afflicted with pulmonary complaints; yet, from its shores to the summits of its mountains, any degree of temperature may be enjoyed within a moderate range. The myrtle, the geranium, the rose, and the violet, grow around in the wildest profusion; the geraniums in particular are so common that the honey of the bees, which is far more pure and transparent than that of England, becomes almost a jelly of that flower. The island is also singularly free from the annoyances and inconveniences so common in warm climates, being subject to no epidemic fevers,—free from snakes, or noxious reptiles of any kind; it is, however, sometimes visited by an easterly wind similar to the Harmattan and Sirocco, which, like them, affects most constitutions with oppression, languor, headach, and dryness of skin.

Its physical character is one mass of mountains, rising to the greatest height in the centre, descending abruptly to its shores, and riven throughout with deep ravines, radiating to the sea in all directions. The cultivation, which occupies altogether only a small portion of its surface, is confined to the coasts and the bottoms of the valleys; vines, of course, forming the principal object; for the corn grown annually on the island scarcely supplies the consumption of two months to its inhabitants, the deficiency being made up by importation from the ports of the Baltic. The only corn grown is bearded wheat and barley: maize, which forms the chief food of the lower orders, is imported mostly from the Mediterranean and the Cape Verde Islands. Among tropical fruits, the guavas, citrons, bananas, and custard-apples are considered even superior to those of the West Indies, and a very superior coffee is grown in gardens: the vegetables are mostly of the same kind as in England, and of much the same quality.

The towns and villages are invariably situated on the sea-coast, generally at the outlet of a ravine; but where the soil is fertile, and the surface sufficiently level to permit it, country-seats and cottages are seen scattered about to a considerable distance up the valleys. Water is abundant, and of excellent quality; springs are found everywhere; and the streams which flow down the ravines, fed by the mountain mists, are never dry, even in summer, while the height from which they descend enables the inhabitants to divert their course at almost any elevation and in any direction; so that wherever the land admits of cultivation it may be irrigated on all sides by these water-courses. On the coasts fish is abundant, and forms an important article of food to all classes.

The capital of the island is called Funchal; it is situated on the sea-coast, and stretches along the margin of a bay about a mile and a half in length, but scarcely one-third in breadth, owing to the abrupt rise of the mountains at the back. It is neither a handsome nor convenient town, though by no means so dirty as Portuguese towns usually are. This arises partly from the influence of the English merchants, and partly from the streets being so steep that every thing finds its way down to the beach; their cleanliness being also greatly assisted by a copious little rivulet running down the centre, the sound and sight of which are particularly grateful in a warm climate. The streets are very narrow, but this gives the advantage of greater shade to passengers (a plan on which many of the large towns of Spain and Portugal are built), and it must be remarked that wheeled carriages are not used on the island.

The houses are generally low, not often exceeding one story in height, and, being all whitewashed, have a neat and clean appearance; those belonging to the richer merchants are large and handsome. They all have turrets elevated above the rest of the building,

from which, owing to the rapid descent on which the town is built, a good view of the bay and offing may be obtained. These towers are resorted to in order to look out for vessels:—the first business of the morning is to mount the turret, to see if any ship has made her appearance since the preceding nightfall; and as every merchant has his own private signals, the names of both the vessel and her consignee are known long before she reaches the bay.

The governor resides in the castle, a large irregular mass of half-modernized Gothic building, situated near the beach; but there is no other public building of much importance. The town abounds in churches, whose bells, on the numerous saints' days, are very noisy; and the cathedral, rather a fine edifice, has numerous altars and shrines, rich in gold, silver, and pearls, while the images of the saints are generally adorned with chaplets and festoons of fresh roses. It has, however, no ceiling, the rough unpainted rafters that form the roof being exposed to view; and the floor consists of nothing but loose planks, which are continually being removed for the purpose of depositing the remains of the dead beneath. Before its western door is a large open space, beyond which is the *Terreiro da Sè*, a promenade under four or five parallel rows of trees, enclosed by a wall a few feet high, with some pretty houses on each side, from the balconies of which the ladies gaze on the gentlemen below. Beyond this is the market-place, which is very clean, and regularly laid out in streets and roofed stalls. The church of *Nossa Senhora do Monte* is the neatest on the island; in approaching the bay it forms a conspicuous object, standing on a terrace about half-way up the mountain's side, and commands one of the most enchanting views imaginable. There is an English church on the skirts of the town, an elegant and convenient building, literally embosomed in ever-blooming roses and white daturas. The *quintas*, or country-seats of the English merchants, are most delightful retreats, scattered about in the most eligible spots among the mountains; and the hospitality of their owners is princely and unbounded.

But the most attractive of the natural beauties in the island is a place called the "Corral," situated a few miles to the north-west of Funchal: it is an enormous chasm, two miles or more in length, about half a mile in breadth, and about 4000 feet in depth; it is enclosed on all sides by a range of stupendous mountain precipices, the sides and summits of which are broken into every variety of buttress and pinnacle, with occasional plots of the richest green turf, and a profusion of ever-green forest-trees, indigenous to the island,—while below is a fair region of cultivation and fruitfulness, consisting of a narrow, level plain, with a river running through it,—a nunnery, with its church,—and a village, whose white cottages seem half-smothered in the luxuriance of their own vines and orchards.

As no wheeled vehicles can be used on the island, all excursions made by visitors must be performed on horses or mules, the owners of which have a singular custom of catching hold of the animal's tail. A party of strangers afford, on their hired hacks, an amusing sight, each dragging a man after him, who, while he twists the tail round his left hand, goads the animal's flanks with a small pike in his right, and further stimulates it by shouting "*Cara, cavache, caval.*" Vain are the endeavours of the riders to rid themselves of this encumbrance by provoking the beast to kick; they are not to be so discarded, but retain their hold at the fullest speed of the animal, and will thus perform with ease a journey of from twenty-five to thirty miles. The roads out of the town are paved causeways; to ascend them is well enough, but to ride down them is really frightful, as the muleteers insist on the rein being left slack, yet

so sure-footed are the mules, that a fall is of rare occurrence. The ladies are carried about in palanquins, which here is a sort of neat cot with curtains and pillows, swung from a single pole, and carried on the shoulders of two bearers, one in front and one behind. The ladies of Madeira never wash their faces, and say that the English destroy their fine complexions by too much water; all cleansing is therefore performed by dry rubbing. If you intend to visit a lady you must send notice over night, and then she dresses herself as if for a ball,—in which costume they are frequently met reclining in their palanquins, generally with one foot hanging outside, especially if it have any claim to symmetry.

A favourite visit of strangers is to the nunneries, where they can purchase artificial flowers and ingenious wax-work toys manufactured by the fair recluses. This traffic is carried on by means of a "roundabout," in which the articles for sale are placed with the prices affixed; the box is then turned round, the money for those taken placed in it, and the box again returned, without the exchange of a single word or look between the parties.

In addition to the many bounties which Nature has lavished on this beautiful island, art has contributed to spread its fame, for there is scarcely, in the inhabited regions of the globe, a spot where the delicious juice of its grape is unknown—its Tinta, Sercial, and Malmsay, which one sees carried about in such quantities through the streets of Funchal in the skins of goats, still retaining somewhat the form of the animal, but with the hair inside.

One drawback to the commerce of the island is the insecurity of its bay, which is exposed from west to south-south-east; and though during summer the land and sea breezes are regular, in winter it frequently blows hard from the south-west, when ships are immediately obliged to put to sea. The water is deep, and the bank, which is steep, does not extend far off the shore; there is generally a surf on the beach, which makes the landing difficult and sometimes impracticable in ships' boats. In the bay is a singular rock called the Loo, about 150 yards from the shore, rising almost perpendicularly to the height of about 80 feet, and crowned by a fort. The citadel is a quadrangular building with bastions, to the north-west of the town; the beach is fortified in front of the town with curtains and bastions, and there is also another fort to the eastward.

Madeira was discovered in 1419, and has always continued an appanage of the Portuguese crown, with the exception of having been twice temporarily held by the English (in 1801 and 1807) in trust for their allies when threatened by France. During the late civil war it was the last of their possessions that held out for Don Miguel, but on his abdication and flight the governor declared for Donna Maria. The population is estimated at from 100,000 to 120,000; it is the see of a bishop, and its commerce consists almost exclusively of wines, of which it exports annually from 15,000 to 17,000 pipes.

The Prophetic Bird.—The former religion of Otaheite instilled many superstitious ideas, of which the most sensible of the natives even now find it difficult wholly to divest their minds. A remarkable instance of this is their belief that a small bird called Oomamoo is gifted with the powers of speech and prophecy; and I heard Taate and Iitotte, both principal chiefs, and reckoned intelligent men, declare that they heard this same bird prophecy an invasion of the people of Bora-Bora, adding that the chief was greatly incensed. These birds are also said to have called to persons when in the mountains, warning them of danger, and directing them which way to take. They admit, with some regret, however, that since the introduction of the Christian religion, this little prophet has become dumb.—*Manuscript Journal of a Voyage.*

Reading.—A proper and judicious system of reading is of the highest importance. Two things are necessary in perusing the mental labours of others; namely, not to read too much, and to pay great attention to the nature of what you do read. Many people peruse books for the express and avowed purpose of consuming time; and this class of readers forms by far the majority of what are termed the "reading public." Others again read with the laudable anxiety of being made wiser; and when this object is not attained, the disappointment may generally be attributed, either to the habit of reading too much, or of paying insufficient attention to what falls under their notice.—*Blakey's Logic.*

Influence of Music on the Mind.—Of the solace of music, nay more, of its influence upon melancholy, I need not look for evidence in the universal testimony of antiquity, nor remind such an audience of its recorded effect upon the gloomy distemper of the perverse mind of Saul. I myself have witnessed its power to mitigate the sadness of seclusion, in a case where my loyalty as a good subject, and my best feelings as a man, were more than usually interested in the restoration of my patient; and I also remember its salutary operation in the case of a gentleman in Yorkshire many years ago, who was first stupified, and afterwards became insane upon the sudden loss of all his property. This gentleman could hardly be said to live—he merely vegetated, for he was motionless until pushed, and did not speak to, nor notice anybody in the house, for nearly four months. The first indication of a return of any sense appeared in his attention to music played in the street. This was observed, the second time he heard it, to have a more decided force in arousing him from his lethargy; and induced by this good omen, the sagacious humanity of his superintendent offered him a violin. He seized it eagerly, and amused himself with it constantly. After six weeks, hearing the rest of the patients of the house pass by his door to their common room, he accosted them, "Good morning to you all, gentlemen, I am quite well, and desire I may accompany you." In two months more he was dismissed cured.—*Sir Henry Hallford's Essays and Orations.*

Runic Inscriptions.—A very interesting treatise has been published by Professor Finn Magnussen, of Denmark, on a Runic inscription found at Runamo, in the circle of Blekinge or Carlserona. The author remarks, that Runic stones are in general of the greatest moment in an historical point of view, and that it is most probable their destruction was the work either of enthusiastic missionaries, or newly-converted princes and chieftains, at the time when Christianity was first introduced, it being their object, so far as was practicable, to extinguish every vestige of paganism. It is well ascertained that churches were frequently erected on the sites of ancient places of worship, and that Runic and monumental stones of Pagan origin were introduced into the foundations of ecclesiastical edifices. In the kingdom of Denmark alone, there are known to exist at the present moment as many as 112 Klippen-Runen, besides 29 in Iceland, and 71 in those provinces in Sweden which once belonged to the crown of Denmark. Very recently two ancient Runic stones have been discovered in Greenland, one in the Faroe Islands, and two tablets in stone with a Runic inscription, the characters of which are similar to those on the Klippe of Runamo. A deputation appointed by the Academy of Science, having last year taken an accurate copy of the latter, Magnussen, the archivarius, spent much time, but without success, in endeavouring to decipher it. The engraving from it having been laid before him for correction, a new mode of reading suddenly occurred to him; he began, therefore, to read it from right to left, and instantly detected the meaning of the first words. In consequence of this discovery he was enabled, in the course of a couple of hours, to decipher the whole inscription. It was executed shortly before the battle on the Brawallahaide, A.D. 713; and composed by a warrior or skiald in Harold Hildetand's service, who was himself one of the parties concerned in that contest. It is conjectured that Harold's whole army, in whose march seven days are said to have been spent, halted at Runamo, and simultaneously gave utterance to the prayers contained in the inscription, and invoked a triumph in behalf of their leader.—*From the Journal of Education, No. XVI.*

Writing.—The habit of committing our thoughts to writing is a powerful means of expanding the mind, and producing a logical and systematic arrangement, of our views and opinions. It is this which gives the writer a vast superiority as to the accuracy and extent of his conceptions over the mere talker. No one can ever hope to know the principles of any art or science thoroughly who does not write as well as read upon the subject.—*Blakey's Logic.*

Inns and Co. residences in London in the Year 1684.—An old book, entitled 'The Compleat Tradesman, London, 1684,' gives a small Directory, which may afford some amusement to our readers, who may by it form some little idea how matters were managed in the time of their grandfathers' grandfathers. The "Alphabetical Account of all the Carriers, Waggoners, and Stage-coaches that come to the several Inns in London, Westminster, and Southwark, from all parts of England and Wales, with the respective Days of their going out," is in ten duodecimo pages, printed in type of about the same size as that which the reader has before him. It appears that there was no more than one conveyance to any one place in England, and that the outgoings of the whole city of London (Westminster and Southwark included) were less than those from each of the principal inns in the present day. The following is the list:—

Monday.....	33
Tuesday.....	9
Wednesday.....	27
Thursday.....	71
Friday.....	52
Saturday.....	52

Total.... 244

Average... 41

If we rate the importance of the inns (many of which now exist with the same names) according to the number of out-goings during the week, we shall have the following list of the principal ones, to which the number mentioned is attached:—

Castle, Smithfield.....	12
Red Lion, Aldersgate Street.....	11
Bear and Ragged Staff, Smithfield.....	9
Belle Sauvage, Ludgate Hill.....	9
Bull, Bishopsgate Street.....	8
Castle, Wood Street.....	8
George, Holborn Bridge.....	7
George, Aldersgate Street.....	7
Queen's Head, Southwark.....	7
White Swan, Holborn Bridge.....	7
Blossoms, Lawrence Lane.....	7
Spread Eagle, Gracechurch Street..	7

These appear to have been the principal houses of the kind. The whole number of inns mentioned is eighty-two. The most common signs are 'The Bell,' which occurs six times, 'The George,' three times, and the 'Cross Keys,' three times. The only sign we never remember to have seen is the 'Dark House,' the name of an inn at Billingsgate.

HAWKING.—No. III.

[Continued from No. 164.]

THE beautiful hills that rise to the north of our vast metropolis—or Hampstead and Highgate, with the more gentle declivities of Hornsey in their rear, and more to the eastward the valley of Tottenham,—abounded in old times with wild boars and other game, and even so late as the latter part of the reign of Henry VIII., with herons, pheasants, and partridges. This abundance of game proves the deficiency of population in the now crowded neighbourhood of our capital. The comparatively small town of London was then in fact surrounded by a thick belt or girdle of forest land, which at some points pressed closely on the suburbs of the town. The existence of that large aquatic bird, the heron, also shows that the country was very incompletely drained, and that marshes and water occupied spaces which we have always seen covered with pleasant meadows, gardens, and villas. Hawking at herons was, without doubt, "the marvellous and delectable

pastime" it is described to have been; but we cannot help thinking that the prevalence of fevers and agues, engendered by the miasma of the water and swamps essential to the herons, was rather a serious drawback on the pleasure. And the worst of this was, that all men were exposed to the malady, while only a few could partake in the sport. Those who suffered most were of course the poor who lived on the spot, or in the outskirts of the town, and in wretched huts; and those who exclusively enjoyed the benefits resulting from such a state of things were the rich. The wild declaimers about the comforts and happiness of the peasantry of old England will hardly fix their golden age in these periods. But they will never fix their "good old times" in any known stage of history. They change and shift their poor man's Utopia about,—now bringing it near to us, and now sending it off to a most remote and indefinite distance, precisely as the ancients did with their happy island of Atalanta, which island, as modern navigators have fully proved, never existed in any of the situations set down for it, and is not likely to have existed at all except in a few visionary imaginations.

In the twenty-seventh year of his reign, Henry VIII. issued a proclamation in order to preserve the partridges, pheasants, and herons, "from his palace at Westminster to St. Giles's-in-the-Fields, and from thence to Islington, Hampstead, Highgate, and Hornsey Park." Any person, of whatsoever rank, who should presume to kill or in anywise molest these birds, was to be thrown into prison, and visited by such other punishments as should seem meet to his highness the king.

It is worthy of remark that Henry VIII. removed the royal hawks (which had been kept there during many reigns) from the Mews at Charing Cross, and converted that place into stables. According to Stow, the King of England's falcons were kept at the Mews in Charing Cross as early as 1377, or the time of the unhappy Richard II. The term "Mews," in falconers' language, meant strictly a place where hawks were put at the moulting season, and where they cast their feathers. The name, confirmed by the usage of so long a period, remained to the building at Charing Cross, though Henry VIII. had so changed its destination as to make it inapplicable. But what, however, is much more curious is this,—that when in more modern times the people of London began to build ranges of stabling at the back of their streets and houses, they christened those places "Mews," after the old stabling at Charing Cross, which, as we have shown, was misnamed from the times the hawks were withdrawn from it. In accidental modes like this many an old word is turned from its original meaning, which eventually is altogether lost.

We have already mentioned the high prices paid for hawks, the great expense attending keeping them, and the paramount estimation in which birds of a fine breed, and well reclaimed and endured, were held. In one work we have consulted, it is stated that, in the reign of James I., Sir Thomas Monson gave 1000*l.* for a cast of hawks. Hawks were sent as royal tokens of regard from kings to kings, and seem to have formed a customary present from the sovereign to the ambassador of a friendly power. We shall have to show that the last-mentioned usage is to be traced to the extremity of Eastern Asia. The greatest falconer of modern times was one of the Lord Orfords, who died toward the close of the last century. This nobleman, reviving an obsolete taste, had his mews and hawks, and a regular establishment of falconers. His necessary outlay was very great. He is said to have incurred an expense of 100*l.* *per annum* for every hawk he kept. Each hawk had its separate attendant,—they all were

sent on occasional voyages to the continent for the sake of a more congenial atmosphere during their time of moulting, and for the better preservation of the plumage and courage of the hawks. This Lord Orford was accustomed to kill hares as well as birds with his hawks. In more ancient times casts of hawks were bequeathed as valuable and honourable legacies, the particular clause in the last will and testament being often accompanied by a prayer or injunction, that the legatee should behave "kindly and dutifully" by the said birds.

The Grand Falconer was one of the most illustrious officers of the royal courts of Europe. The "Grand Fauconnier" of France had 4000 florins *per annum*, was allowed 300 hawks, and had 50 gentlemen and 50 attendants to follow him. He rode out with the king on all grand occasions. Froissart informs us, that, when Edward III. was carrying on his destructive wars in France, he had with him 30 falconers on horseback who had charge of his hawks, and that every day he either went out hunting, or up the rivers to hawk.

The English kings, in whose courts the office became hereditary, probably borrowed the idea of having a grand falconer from the French. The present Duke of St. Albans is, by right of birth, "Grand Falconer of England;" for, like so many other court offices, the name and dignity remain when the employments are gone and altogether obsolete. Scotland also has her hereditary grand falconer. The Duke of St. Albans keeps several casts of fine hawks. These bold and sagacious-looking birds are often to be seen during his Grace's winter sojourn at Brighton, where they are exposed for the amusement of the public in Regency Square, and occasionally flown on the Downs. In deficiency of proper game, a certain number of unfortunate pigeons are taken to the spot selected, in bags, and there thrown off, one or two at a time, to be pursued by the falcons. Some of the Duke's falcons seem well-trained, but of course they are not seen to advantage with such quarry, and the sport is rather tame. The scene, however, with the mounted falconers clad in forest-green—with antique hat and feathers—with the hawk hooded on the fist, or undressed and about to be cast-off, or answering to the lure and about to return to hand, is pleasing, and worth seeing by those who may have the opportunity. It will give at least an idea both of the instinct of the falcons and of the power of education and discipline over those fierce birds, and assist the conception of what hawking was when it had all its "appliances and means to boot."

The frequent mention of rivers in the history, romances, and ballads of the middle ages, and more recent times, seems to indicate that herons and other water-fowl afforded the best diversion. When a river or brook frequented by game ran between high banks, or was overlooked by hills, it was customary for a sportsman, with dogs well-trained to the work, to go along by the water's side, while the rest of the party, mounted, and each with his hawk on his fist, cantered over the high ground above the stream. As the dogs started the game from the stream, or its rushy banks, the falconers above prepared to cast-off their hawks at it. In case of its being a wild duck, or any smaller water-fowl, the hawk, descending from its elevation, grappled, or, as falconers say, *bound* it at once, without having any necessity for "the mount," or upward flight. We give, at the end of this article, another wood-cut from Reidinger, which shews the capture of the quarry.

We have only to look at our old literature for abundant proofs of the passion for and prevalence of hawking. No art or craft whatsoever has more copiously contributed to the figurative language, proverbs, and adages of our ancestors. To them hawking was a

complete mine of metaphor. Our poets, from Chaucer to Spenser and Shakspeare, and down to those of more modern times, continually derived figures, illustrations, and comparisons from this gentle craft. Those who are at all familiar with the works of our immortal dramatist will instantly recall many instances of this habit. Nor were our English poets at all peculiar in this practice. The same obtained among the old writers of France, Spain, and (perhaps in a more marked degree) among the old Italian poets. The great Dante abounds in terms of falconry, and similes and allusions drawn from the same source; and so also does Petrarca.

The popular proverbs and sayings derived from falconry are not wholly extinct among country-people, though their origin is seldom thought of, and their original meaning frequently perverted. It is a common thing to hear country-people designate a dull, stupid fellow as one "that can't tell a hawk from a handsaw,"—the proper reading of which would be—"who can't tell a hawk from a *hernshaw*, or *hernsaw*;" "hernshaw," or "hernsaw," being for many ages the popular name for "heron," and so used by Spenser, and other English writers. The proverb is as old as the time of Shakspeare, who puts the words in the mouth of Hamlet.



[To be concluded in a future Number.]

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THE HOUSES OF PARLIAMENT.—No. IV.

THE HOUSE OF LORDS.



[House of Lords in the time of George II.]

IN pursuance of the plan sketched generally in No. 168 of the 'Penny Magazine,' we shall now endeavour to bring into one view such information as seems to us most interesting in connexion with the House of Lords, reserving for a future occasion a similar statement with regard to the House of Commons.

The writer of a very instructive essay, published in 1716, under the title of 'An Enquiry into the Original Constitution of Parliaments in England and Scotland,' says that "for many ages all laws were nothing else but the king's answers to the petitions presented to him and his council, as is apparent by many old statutes and the confession of Sir Edward Coke." The fact seems to be, that the legislative power rested essentially in the sovereign, who did not consult his great council on all public measures, but only assembled them occasionally to obtain their concurrence when the measure in contemplation was such as could not easily be carried into effect but through their agency, or with their consent.

Without going back to the times of Saxon rule in this country, it should be recollected that, at least after the Conquest, the territory was chiefly in the hands of military tenants holding immediately of the crown estates of various extent. Some possessed immense tracts, having many subordinate holders, while others held estates inferior to those which were in the hands of the vassals of the great proprietors; but the holding directly from the crown constituted an honour and distinction which entitled the person to a voice in the great council. When 'Domesday Book' was compiled there were about 700 such persons; but although all were equally, by virtue of their tenures, entitled to be consulted in the business of the nation, it appears that only the person holding a barony—that is, the more wealthy and powerful of those military tenants—exercised the right. The rest were excused—and were glad to be excused—on the score that their means were inadequate to enable them to incur the serious expense of meeting the king becomingly in the great council. The same right was possessed by the heads of the church, that is, not only the bishops, but certain abbots and priors, who claimed, as heads of extensive monastic establishments, rights and privileges separate from, and independent of, the bishops, by whom therefore their interests could not be represented.

This was the original House of Lords,—and not only the House of Lords, but the Parliament, for there was no other house. The people were of no account in those days; and if they were at all thought of, their interests were supposed to be sufficiently represented by the barons, who stood in the relation of petty sovereigns to the knights and gentlemen holding estates of them, while the tradesmen and inhabitants of towns occupied a position of dependence on the same barons which was little less than servile.

To understand properly why the voice of the great body of the people was not heard in the national council—if it might be called such—we should a little consider the relative circumstances in which they were placed. In these times the most considerable "boroughs" were very different from the towns and boroughs of the present day; and the inhabitants were mostly small tradesmen who lived together in the same neighbourhood without any particular civil tie, and "were not," says Hume, "even regarded as a body politic." The same writer, whom we here quote rather for his facts than his opinions, illustrates the condition of the burgesses of those times by stating, after Holinshed, that the superior lord was equally prohibited by the feudal law from marrying his ward to a burgess or to a villain (slave). This fact shows very strikingly the estimation in which these two classes, forming the bulk of the population, were held;

while it precludes any surprise at their political position, and accounts for the circumstance that the histories of those periods find no occasion to notice them, and give us reports only of the kings, the nobles, and the clergy—their foreign wars and domestic quarrels. When they are brought under our notice, it is as objects for whose protection the barons condescend to introduce a clause into some grant or charter extorted from the crown. We shall have another opportunity of stating more fully such facts as illustrate the early condition of the Commons; but it is desirable here to notice that the first representatives of the people were peers, twelve in number; and when afterwards men of inferior rank were admitted, their tone was most subdued and humble; they declined to interfere in great questions of state, and on several occasions could bring their deliberations to no other conclusion, than that they would advise the King to abide by the counsel of the Lords. Even after the Commons began to be consulted, they were only occasionally summoned—that is, only when the question was of peculiar interest to the communities they represented; and from the great annoyance they expressed when they were required to declare their opinions on general subjects of state—or questions of peace and war—it seems likely that, even when summoned regularly to the Parliament, they only sat and voted with the Peers on particular questions.

It is amusing and instructive to contrast this position with that to which the Commons had attained even in Elizabeth's reign, when they ventured to engage with the Lords in controversies about forms. "They complained that the Lords failed in civility to them by receiving their messages sitting with their hats on; and that the keeper returned an answer in the same negligent posture; but the upper house proved to their full satisfaction, that they were not entitled, by custom and the usage of Parliament, to any more respect. Some amendments were made by the Lords in a bill sent up by the Commons; and these amendments were written on parchment, and returned with the bill to the Commons. The lower house took umbrage at the novelty; they pretended that these amendments ought to have been written on paper, not on parchment; and they complained of this innovation to the Peers. The Peers replied that they expected not such a frivolous objection from the gravity of the house; and that it was not material whether the amendments were written on parchment or paper, or whether the paper were white, black, or brown. The Commons were offended at this reply, which seemed to contain a mockery of them; and they complained of it, though without obtaining any satisfaction*."

The cause which induced the sovereigns to summon the barons and prelates (and this cause ultimately procured the Commons also to be summoned) was obviously because they despaired of giving effect to measures to which a previous consent had not been obtained. Hence they had, on most occasions, reason to conclude that the subjects to be brought under their consideration would not be of the most pleasant description to themselves, and the sovereign had, therefore, often much difficulty in obtaining their attendance, notwithstanding his apologies for the necessity of requiring their presence. "The attendance was considered an irksome business, and a nuisance to be avoided. The strong, the cunning, and the weak, devised respective methods to ease themselves of the troublesome duty. . . . The earls and barons occasionally refused attendance, or rendered their appearance as unwelcome by approaching in fighting attitudes, that the king not unfrequently declined the honour of their visit and advice, or stipulated that their coming should be unaccompanied by warlike preparations†." They came the

* Hume, chap. 42.

† Westminster Review, Oct. 1834.

most readily when it was their determination less to deliberate on the king's proposals, than to force on his consideration proposals of their own.

We stated generally, in the former Number, that the early Parliaments were seldom held twice consecutively in the same town. "The constitution of King, Lords, and Commons," says the lively writer in the 'Westminster Review,' "was accustomed to scupper as fast as the state of the roads would admit, all over the kingdom, from Berwick-upon-Tweed to the Land's End. Within one year it would hold its parliamentary sittings at Carlisle and Westminster; in the following year at Exeter and Norwich, or at Lincoln and Worcester." Again, "Not only were the early Parliaments holden in different towns, but they frequently moved from place to place daily during the session. The Parliament at Lincoln, in the 9th Edward II., was holden on the 12th of February in the hall of the dean, on the 13th in the Chapter House, and on the 14th in the convent of the Carmelite Friars." The same writer thinks that the fixation of Parliament at Westminster must have operated very injuriously upon the towns which lost the privilege of occasionally entertaining the Court and Parliament. It is, however, quite as likely that the country towns were heartily glad to be well rid of the occasional visitations of these imperious and turbulent senators and their insolent and riotous retainers; and although trade must in those towns have been quickened for the time, it may be well doubted whether, in the long run, the flux and reflux, the excitements and false calculations induced by temporary prosperity, and the uncertainty where the Parliament would next meet, did not concur to render those visits sources of more harm than good even to the local tradesmen themselves. It is perfectly clear that the country generally was never the better for their movements.

We do not imagine that the House of Parliament—that is, the Peers—formed in those days a very numerous assembly in itself, although the barons usually came with such large retinues of knights, gentlemen, and inferior followers as brought a great concourse to the place where they met. Perhaps the number at any previous period was never so great, or at least greater, than at the accession of James I., by which time the reigns of the Tudor dynasty had repaired the diminution which the wars of York and Lancaster had occasioned in their number. James I., on his accession, found that the number of the English peers amounted to fifty-nine. The great increase which took place during little more than a century after will be best shown by the following table, which is taken from a scarce little work, published in 1719, under the title of "Two Lists, showing the alterations which have taken place in the House of Commons from the beginning of the reign of Henry VIII. to the end of that of King James I., and in the House of Lords from the accession of James I. to this time."

Existing	59	Extinct.	Additions.
James I. created	62	17	45
Charles I.	59	21	38
Charles II.	64	53	11
James II.	8	8	0
William and Mary.	30	21	9
Anne	30	24	6
George I.	20	10	10
	332	154	119
Deduct Extinctions ...	154		
Peers in 1719	178		

From that period up to the present time, the rate of increase has been nearly in the same proportion. The present English peerage consists of 25 dukes, 19 marquesses, 117 earls, 16 viscounts, 179 barons, exclusive of 16 Scotch and 28 Irish peers, who now form component parts of that branch of the legislature, and with the

two archbishops and 24 English and 4 Irish representative bishops, compose a total of 430 peers in Parliament.

The powers and privileges of the Lords, as a branch of the legislature at the present time, and the forms observed in their assemblies, are, upon the whole, similar to those of the Commons, which we shall have another occasion to mention. A few peculiarities may be stated. As an integral part of the legislature of the empire, the consent of a majority of the peers is necessary to give effect to any law; but they have a privilege, not possessed by the Commons, of voting by proxy, without personal attendance. The peers, in each several rank, take place according to the date of creation; and in voting, those of the lowest rank first declare their opinion in the words "Content" or "Not content." On state occasions, the peers sent themselves in the house according to their rank; but in general no particular order is observed, except that of the "ministerial" or "opposition" side of the house. The Peers always bow towards the throne on entering the house, which would seem to imply that the king is always supposed to be present. He, however, rarely attends except at the opening or close of a Parliament, or one of its sessions. On such occasions, after the king is seated on the throne, the Lords sit down, but without being covered. The Gentleman Usher of the Black Rod is then sent by the king to command the attendance of the Commons, who, on their arrival, stand at the bar to hear the king's speech. The substance of this speech is addressed generally to both estates, in the words "My Lords and Gentlemen;" but towards the middle, there is always a part, relating to finance, specially addressed to the "Gentlemen of the House of Commons." This is because no money bill, or a bill imposing a tax, can originate in the House of Lords; and when such a bill is sent up from the Commons, the peers must either agree to it or reject it altogether, for the least alteration is considered fatal to it. In such cases it is the usual practice for the Commons to introduce a new bill, in which the amendments suggested by the peers are incorporated.

Besides its legislative character, the House of Lords has a judicial character. It is a court of appeal from the judgments of all other courts; and its decision is final. It is also the supreme court of criminal jurisprudence, in which character it has cognizance of treason and other high crimes committed by Peers and others; and also tries persons impeached by the House of Commons. The Peers acquit or condemn without taking any oath, but simply declare, upon their honour, that the accused is "Guilty," or "Not Guilty." Such trials, when of great interest or importance, usually take place in Westminster Hall.

After the separation of the Peers from the Commons in Parliament, the former continued to sit in Westminster Hall; and we have been unable to ascertain at what precise period they removed to the apartment which they afterwards occupied. Stowe, who is seldom wanting in information on such points, mentions no definite period. He only says: "and now, of a long time, the place of the sitting of Parliament remains in the said ancient palace: the Lords in a fair room, and the Commons in that which was formerly St. Stephen's Chapel." This "fair room" was the old House of Lords, which was situated near Westminster Hall by the Painted Chamber and Court of Requests. We have already traced the locality of the Lords to the house lately destroyed; and the apartment previously occupied seems, in its interior arrangements, very much to have resembled that subsequently prepared for their reception, the principal difference consisting in the greater size of the latter, the old house being an oblong apartment of scarcely half its dimensions. A comparison of our two engravings will exhibit small differ-

ences of detail much better than any verbal description. The old apartment was considered spacious, lofty, and every way adapted to its purposes, until the Union with Ireland brought an accession to the numbers composing the House of Lords, and made more extensive accommodations necessary. In every description of this, as well as the more modern room, the tapestry, to which we have already devoted a separate article, formed a prominent subject. The wood-cut in page 465 represents this building in the time of George II.

We have already had occasion to mention that the recent House of Lords was formed out of what had formerly been the Court of Requests. It is supposed that originally, and before the erection of Westminster Hall, this apartment was the great hall of the palace. In the time of Richard II. it is found described by the name of Whitehall, as it is also in 1429: for John of Gaunt is recorded to have sat as seneschal in the Whitehall of the King's Palace, near the King's Chapel, which cannot agree with any room so well as this, for the purpose of determining claims previous to the coronation of Richard II., and in 1429, on the day of the coronation of Henry VI., the prince of Portugal's son was knighted in the Whitehall at Westminster. In 1193 the then king is represented as sitting at dinner at Westminster, in that Hall of his which was called the Little Hall, probably this; and the denomination was apparently given to it to distinguish it from the present Westminster Hall. Sir Edward Coke speaks of the apartment as the Court of Requests, or the Whitehall, thus showing the identity of the place denoted by these names.

According to Stow, the Court of Requests was instituted in the reign of Henry VII., but the date of its abolition is not precisely indicated. We shall quote the account given by the writer we have named:—"At the upper end of the Great Hall by the King's Bench is a going up to a great chamber called the Whitehall, wherein is now kept the court of wards and liveries.* * * And adjoining therunto is the Court of Requests. Both these are now also dissolved. A few words concerning this last-named court. In this court all suits made to the King or Queen, by way of petition, were heard and ended. This was called the 'Poor Man's Court,' because there he could have right without paying any money. And it was also called the 'Court of Conscience.' The judges of this court were called the 'Masters of Requests;' one for the common laws and the other for the civil laws; and I find that it was a court of equity, after the nature of the Chancery, but inferior to it.* * * The chief judge was commonly the Lord Privy Seal, and the Court-Bishops and Chaplains, and other great courtiers, were the judges and masters*."

Pennant, who wrote not many years before the apartment was appropriated to its recent uses, said:—"It is a vast room modernized; at present a mere walking-place. The outside of the south end shows the great antiquity of the building, having in it two great round arches with zigzag mouldings, our most ancient species of architecture."

We have already described the interior appearance of this apartment as afterwards prepared for the reception of the Peers, and as it appeared previously to the late fire. We shall, therefore, now proceed to mention some topographical features of that portion of the mass of palatial buildings to which our present statement particularly refers.

On the eastern side of those buildings was, and is still, a passage now called Parliament Place, which at one time led from Old Palace Yard to the water; but the end of which was in the early part of this century closed by a wall. To the west of this passage, at the south-east corner of Old Palace Yard, stands the end of the Prince's

Chamber, into which the entrance used by his Majesty as the way to the House of Lords immediately leads; farther on, on the east side, was the Court of Requests, which, since the Union with Ireland, has been the House of Lords, the principal entrance to which was from the passage at the south end of Westminster Hall, which passage at once served to connect the Hall with the two houses of Lords and Commons, and as a way to them all from Old Palace Yard. Behind the Prince's Chamber and the Court of Requests, (or most recent House of Lords), or, more properly, extending north and south between the Prince's Chamber and the Painted Chamber, stood the old House of Lords. In this part there were many other nameless rooms which, with the old House of Lords, the Painted Chamber, the Court of Requests, the Prince's Chamber, and a number of cellars under the whole mass of building, were undoubtedly parts of the ancient palace.

On the left hand, in the passage called "Parliament Place," is the south side of the Prince's Chamber; beyond which, to the east of that chamber, there was a small enclosed court; and in the farther corner of that court, very near the Prince's Chamber, through which, and turning to the left through another door-way, was the immediate way into the cellar where the Powder-plot was intended to have taken effect. This cellar is imagined to have been the kitchen of the old palace of Edward the Confessor, a circumstance which the Earl of Northampton, who presided at the trial of Garnet the Jesuit,—for his share in the Powder-plot,—stated that he had ascertained by ancient records. At one end of the east side of this cellar there was a door-way with a triangular arch, as it is called; and at the other end was a square door-way within a semicircular arch, and it was through this door-way that Guy Fawkes intended to have escaped from the destruction with which he purposed to overwhelm the estates of the kingdom.

When the action itself had been determined upon by the conspirators, Percy, one of them, hired for their use a house in Westminster, nearly adjoining the Parliament, and there they began to make their mine about the 11th of December, 1604. The situation of this house was a little to the north of the King's Entrance to the Prince's Chamber, and its south-east corner was joined by the Prince's Chamber and a cellar under it, which cellar at that time belonged to the house standing there, and was undoubtedly that where this affair commenced. Guy Fawkes, in his confession, says, that when he came to the very foundation of the wall of the house, which was about three yards thick, and found the work one of great difficulty, they took to them Robert Winter. He adds, that it was about Christmas when they brought their mine to the wall, and about Candlemas they had wrought the wall half through. While they were working at the wall, they heard a rushing in a cellar as of removing coals. "This noise was in the next room, and fearing that they were discovered, they sent Fawkes to see what was the matter; and on his return he informed them that it was a cellar in which coals had been deposited, which were then selling off, and that the cellar was to be let. Upon this intelligence, Percy immediately went and hired it, as being more fit for their purpose than that of which they held possession, because it was *directly* under the Parliament, or rather under the House of Lords, at whose bar the Commons would be standing to hear the King's speech, at the time when it was intended that the plot should take effect. In this newly-acquired cellar they laid twenty barrels of gunpowder, which, to prevent discovery, they covered with billets and faggots. To this number they afterwards added fourteen more barrels, making altogether thirty-four, or, as Sir Edward Coke stated at the trial of the conspirators, thirty-six barrels. Until the astonishing

* Stowe's Stow, 6th edit. 1755. vol. ii. p. 630.



[Death of the Earl of Chatham, from the Picture by J. S. Copley.]

thickness and strength of the stone walls are considered, this quantity of powder must seem much beyond what was requisite for the immediate purpose. We have already seen Fawkes describing a wall as nine feet thick; and others have been found, by actual admeasurement, to be nearly seven feet thick. The size of the cellar was seventy-seven feet long by twenty-four feet four inches wide; if, therefore, the force of the powder had not been sufficient to blow all these stone-walls to pieces, the explosion would have spent its strength through the doors without affecting the buildings above. The whole was intended to have been kindled by a train or match which would burn a certain time before it took effect, allowing Fawkes sufficient time to escape through the doors and courts, and down Parliament Place to the water-side, where a boat would have been in readiness to take him across to Lambeth.

The exact spot where Winter, Rockwood, Cayes, and Fawkes were executed is not generally known; but Smith, in the 'Antiquities of Westminster,' quotes a pamphlet, contemporary with the event, which says that they were brought from the Tower to the Old Palace in Westminster over against the Parliament House, and there executed.

We have spoken of the Gunpowder-plot somewhat out of its chronological order for the sake of mentioning it in connexion with the immediate scene of operations which were so happily frustrated on the eve of accomplishment. We may now proceed to notice more briefly some other circumstances which occur among our recollections of the upper house of Parliament. The first of these circumstances probably occurred before the removal of the assembly from Westminster Hall; but it may be noticed as a curious illustration of the spirit of parliamentary proceedings in early times, when "debates were carried on more by the eloquence of the fist than of the tongue," and when private broils more frequently engaged attention than measures of public importance.

In the last year but one of Richard II.'s reign, the Duke of Hereford appeared in Parliament and accused the Duke of Norfolk of having spoken to him, *in private conversation*, slanderously and treasonably of the king and his intentions. Norfolk denied the charge,—gave Hereford the lie, and offered to prove his innocence by single combat with the accuser. The Parliament, thinking it right to take cognizance of this transaction, but not caring to prolong its session for the purpose, delegated its authority to a committee. With the concurrence of the king, and apparently of this committee, every preparation was made for a grand duel between the parties, in the presence of the chief authorities of the kingdom: but at the last moment, when the combatants were already front to front, the king, with the advice and authority of the commissioners, interposed to prevent the effusion of blood; and, to show his impartiality, sentenced the antagonist Peers to banishment, from which Hereford soon returned to pluck the crown from the head of his weak and misguided cousin.

In the early part of the year 1478, King Edward IV. appeared in the House of Lords to plead his own cause against his brother, the easy Duke of Clarence, against whom no charge was brought but that of having used certain free expressions, which, if true, seem to prove nothing more than his careless and inconsiderate disposition. But the truth of the charge was proved by no adequate evidence; the duke was declared guilty by the Peers, and the Commons petitioned for his execution, and passed a bill of attainder against him. The king favoured his brother with the choice of the manner in which he would die, and, in pursuance of his choice, he was drowned in a butt of malmsey in the Tower. Hence, in a just remark on this transaction, well hits off the parliamentary spirit of that period.

"The measures of the Parliament during that age furnish us with examples of a strange mixture of freedom and servility; they scrupled to grant, and sometimes refused, to the king the smallest supplies, the most necessary to the support of the government, even the most necessary for the maintenance of wars, for which the nation as well as the Parliament itself expressed great fondness. But they never scrupled to concur in the most flagrant act of injustice or tyranny, which fell on any individual, however distinguished by birth or merit."

The same historian remarks that this spirit lasted more than a century longer. Among other proofs of this, their treatment of Wolsey may be mentioned. No sooner had the capricious Henry VIII. withdrawn his favour from that able but ambitious minister, than the House of Lords came forward with a charge of forty-four articles against him, and petitioned for his punishment and removal from all authority. Thomas Cromwell, then a member of the House of Commons, but formerly a servant of the cardinal, and "among the faithless faithful only found," stood up in the lower house to defend his benefactor. This Cromwell we find, a few years after, sitting in the upper house as Earl of Essex, Knight of the Garter, Vicar-general, Lord Privy Seal, Lord Chamberlain, and Master of the Wards, and was declared by his Peers in that house, among other flatteries, to be "worthy, by his desert, of being vicar-general of the universe." A few days after, this so worthy man was sentenced in the same house to death, without trial, or examination of any evidence against him.

A few years before this last event, in the same reign, Queen Anne Boleyn lifted up her hands towards heaven, before a jury of twenty-six peers, and cried aloud, "O Father! O Creator! thou art the way, the truth, and the life, *thou* knowest that I have not deserved this fate!"—the fate of being burned or beheaded at the king's pleasure, to which she had just been sentenced by those peers. In the session of Parliament which commenced in April, 1540, none of the abbots were allowed to sit in the House of Lords. This naturally followed from the suppression of the greater monasteries, which had previously taken place.

The Parliaments in those days do not appear to have wasted much time in debate. Except when the sovereign wanted a grant of money, they rarely hesitated to comply at once with the wishes of the court. Hence, although during the long reign of Henry VIII. there were ten Parliaments, which held twenty-three sessions,—the time which they sat did not altogether exceed three years and a half.

In 1549 a bill of attainder was brought into the House of Lords against the protector Somerset's ambitious brother, Seymour. He had demanded a fair and open trial; but none of all his friends in the house stood up to support his demand, though many rose to say what they knew against him. Three years after, Somerset himself, whose ruin involved that of many of his friends, was tried by the Peers, who acquitted him of treason; but, to the great regret of the people, sentenced him to death on the charge of intending a felonious assault on the Privy Council.

On the opening of the first Parliament of Queen Mary, the court directed mass to be celebrated before both houses, with all the ancient rites and ceremonies which had been abolished by Act of Parliament. Taylor, Bishop of Lincoln, having refused to kneel when the host was elevated, met with very severe treatment, and was violently thrust out of the house. The Parliamentary history of the following year was remarkable for the steady resistance of both houses of Parliament to the desire of the Queen to be invested with the power of appointing her successor, with almost the avowed intention of nominating her husband, the King of Spain.

We have already mentioned a little contest about forms which took place between the Lords and Commons in the reign of Elizabeth; and as we are now rather mentioning historical recollections than legislative measures, we may mention the trials of the Earls of Essex and Southampton by the Peers as one of the most interesting local events of that reign. The trial was a fair one for the times, and is rendered the more remarkable to us by the circumstance that Bacon, who had no official duty to perform, and had lived on terms of private friendship with Essex, was one of the most active of the lawyers opposed to him on this trial. It is not pleasant to mention the infirmities of such a man as Bacon; but the most interesting, and, at the same time, the most afflicting local association we can find for the reign of James I., is that he, then Viscount St. Albans and Lord High Chancellor of England, was impeached by the Commons at the bar of the House of Lords, and was obliged to confess with shame and sorrow, that his hands—the hands of the first judge in the land—were unclean.

In the reign of Charles I. (1626), the Earl of Bristol appeared in the House of Lords, though forbidden by the king to attend, and accused the Duke of Buckingham of high treason. The most interesting judicial business which the Peers had to perform during this reign, consisted in the trials of the Earl of Strafford and of Archbishop Laud, both of whom were condemned by small majorities in very thin houses. Seven Peers alone voted on Laud's trial. At this time the Commons were paramount, and their will could not be gainsaid. Hence they passed a vote, declaring it treason in a king to levy war against his Parliament, and appointing a high court of justice to try Charles for this treason, they sent the vote up to the Peers. The upper house had then become of no account, and very few of its members were in the habit of attending. On that day there was rather a fuller attendance than usual, there being sixteen Peers present, who immediately and unanimously rejected the vote of the Commons, and adjourned themselves for ten days. Before the ten days had passed, the King had been tried and beheaded. When the Peers met again according to adjournment, they entered upon business, and sent down some votes to the Commons, of which the latter took no notice; but a few days afterwards they passed a vote that they would make no more addresses to the House of Peers, nor receive any from them; and that that house was useless and dangerous, and was therefore to be abolished.

Cromwell created several lords, and wished to have a House of Peers; but none of the old Peers would attend, and the attempt was altogether a signal failure. Sir Arthur Hazelrig and some other of the new Peers preferred to sit in the House of Commons, which refused to acknowledge the jurisdiction of the other house.

The Peers resumed their functions without opposition in the Parliament which recalled Charles II. At one time during that reign the anger of the Commons was excited by the refusal of the Peers to commit the Earl of Clarendon on their impeachment; but after he had escaped to France, they concurred with the lower house in the measures taken against him. A subsequent dispute between the two houses, which arose from an attempt of the Peers to make some amendments in a money bill sent up by the Commons, obliged the king to prorogue the Parliament. When the next king, James II., fled with the intention of escaping to France, the bishops and Peers who were then in town assumed, for the time, the administration of the government, and took such measures as they judged necessary for the public welfare; and afterwards acted in concurrence with the Commons in the final settlement of the Crown.

There were some trials before the Lords of considerable interest in the following reigns, such as that of Dr. Sacheverell, in the reign of Queen Anne, and those of Atterbury bishop of Rochester, the Earl of Macclesfield, and the Earl of Oxford, in the reign of George I. Oxford, who was prime minister under Queen Anne, was impeached by the Commons; but as they were prevented by a misunderstanding with the Lords, from appearing to support the accusation on the trial, he was acquitted. But the Duke of Ormond and Lord Bolingbroke, who were also impeached but did not surrender, had their names erased from the list of peers; inventories were taken of their personal estates; and the Duke's achievements as Knight of the Garter were taken down from St. George's Chapel at Windsor. Bolingbroke was afterwards pardoned.

The wood-cut at page 469 is after a painting by Mr. Copley, the father of the present Lord Lyndhurst, and represents a circumstance which took place in the House of Lords in the year 1778, when the Earl of Chatham left the bed to which he had been confined by sickness and the infirmities of age, to appear once more in the House which his eloquence had so often thrilled. He spoke with the ardour of his best days on the motion of the Duke of Richmond for an address to his Majesty on the state of the nation. After having concluded, he listened with much impatience and restlessness to the reply, and attempted to rise in order to answer; but, after two or three unsuccessful efforts to stand, he fainted, and fell back in his seat. He was caught in the arms of some lords who stood near him, and the house immediately adjourned. His death is considered to have been immediately caused by this exertion, which he survived little more than a month. The reader will find a notice and portrait of this distinguished statesman in No. 39 of the 'Penny Magazine.'

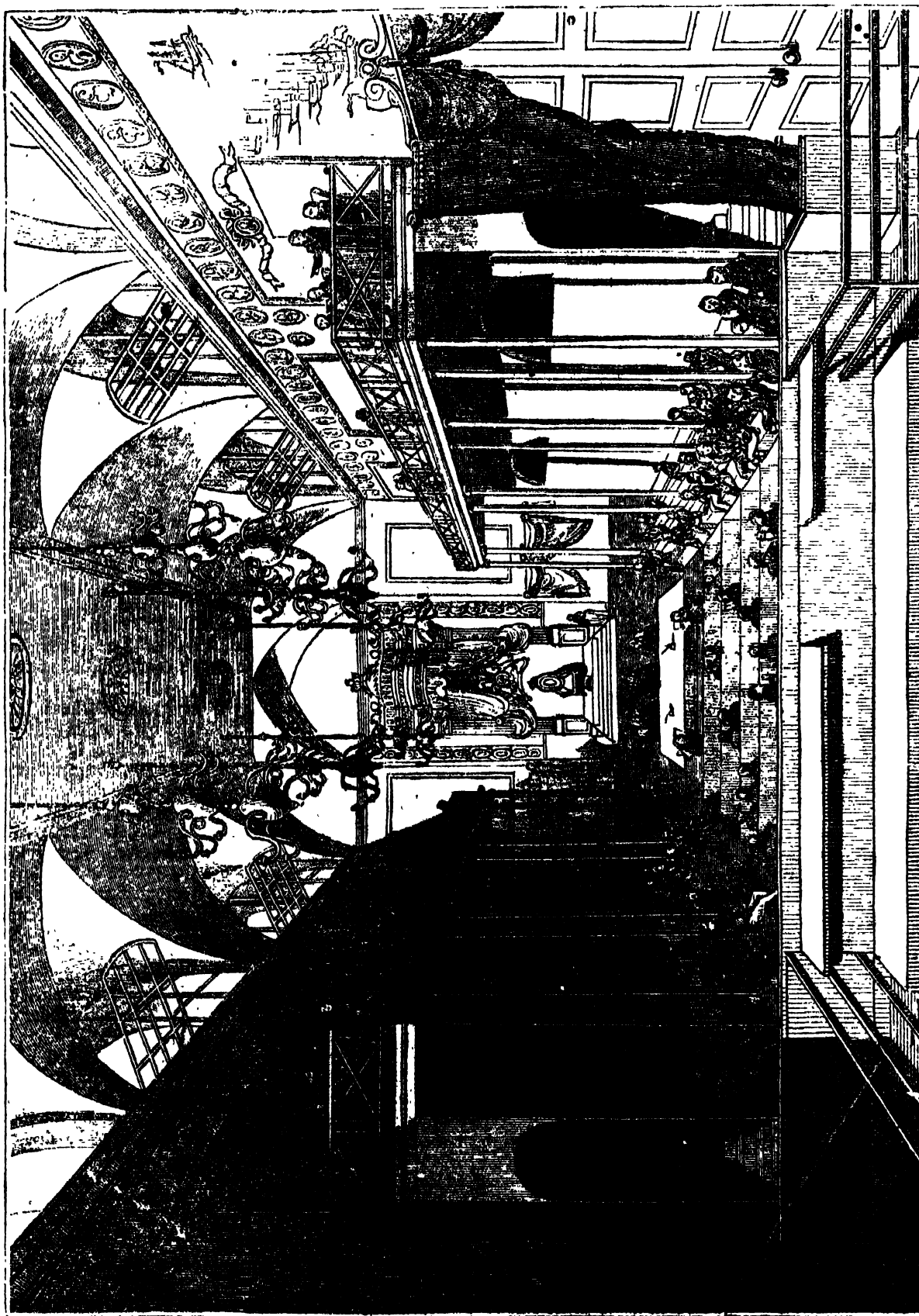
The addition made to the members of the upper house by the Union with Ireland in 1800, suggested the propriety of enlarged accommodation; in consequence of which the apartment recently destroyed was prepared for their reception. Within the short period of its existence many historical associations cannot have arisen. The trial of Queen Caroline, in 1820, will doubtless be considered the most interesting; but the circumstances of that event are too fully and familiarly known to the public to need any extended notice in this place. The following wood-cut represents the House of Lords as fitted up on the occasion of this trial.

In our account of the Tapestry of the Destruction of the Spanish Armada, we omitted to notice a curious passage in Pennant's description of the old House of Lords:—

"The House of Lords is a room ornamented with the tapestry which records our victory over the Spanish Armada. It was bespoke by the Earl of Nottingham, lord high admiral and commander-in-chief on the glorious day. The earl sold it to James I. The design was drawn by Cornelius Vroan, and the tapestry executed by Francis Spiering. Vroan had a hundred pieces of gold for his labour. The arras itself cost 162*l*. It was not put up till the year 1650, two years after the extinction of the monarchy, when the House of Lords was used as a committee-room for the House of Commons*."

Speaking of the apartment in which the king was wont to put on his robes when he came to the House of Lords, Pennant states that it contained a curious old tapestry representing the birth of Queen Elizabeth. Anne Boleyn was exhibited in bed, on one side of which stood an attendant, and on the other a nurse with the child in her arms. The continuity of the story was a little broken by the loss of a piece of the arras, which had been cut out to make a passage for the door.

* 'Some Account of London,' p. 91, 3rd edit., 1793.



[House of Lords as prepared for the Trial of Queen Caroline.]

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LEO THE TENTH.



[From the Picture by Raffaele in the Vatican.]

THIS pontiff, previously to his accession to the papacy, was known by the name of Giovanni de Medici, being the second son of Lorenzo de Medici, styled the Magnificent. He was born at Florence, in December 1475, and was early destined by his father for the

church, having received the tonsure at the age of seven years. The influence of his family, no less than the grievous corruption of the church at that period, are manifested by the fact that the boy, being at that early age declared capable of ecclesiastical preferment, im-

mediately received two rich abbacies, and that, in the course of a few years further, the number of the preferments held by him amounted to not less than twenty-seven. But the favourite object of Lorenzo's ambition for his son was his elevation to the cardinalate, with the ultimate view of his election to the papedom; and, by means of incessant applications, he prevailed upon Innocent VIII. to confer that high dignity upon him at the early age of thirteen.

But while Lorenzo thus exerted his interest for the aggrandizement of his son, he did not fail to use his best endeavours to render that son worthy of the dignities he had attained, and the higher dignities to which he aspired. This wish of the father was forwarded by the dispositions and talents of the son, which were such as to enable him to draw the full benefit from the instructions of the able teachers who had charge of his education. Even the pope, also, who allowed himself to be prevailed upon to elevate a mere lad to a place among the highest ecclesiastical dignitaries, had the good sense to make it a condition that Giovanni should spend three years in professional studies at the university of Pisa, before he should be invested formally with the purple. Accordingly, this solemn act took place in the year 1492, and the youth immediately went to reside at Rome as one of the sacred college. His father died very soon after, and was succeeded by his eldest son in his offices in the republic of Florence.

The young cardinal remained at Rome until his opposition to the election of Alexander VI. to the papal chair rendered it expedient for him to withdraw to Florence, from whence, at the invasion of Italy by Charles VIII. of France, he and the whole family of Medici were expelled, and obliged to take refuge in Bologna. In 1499 he went to Venice, Germany, and France; and after having remained some time in Genoa, returned to Rome, where he resided during the remainder of Alexander's pontificate and the early part of that of Julius II., interfering little in public affairs, but devoting his time to the cultivation of literature, and indulging his taste in the fine arts; while his leisure hours were spent in a select circle of acquaintance of tastes congenial to his own, or in the enjoyment of the chase,—an amusement to which he was much addicted. The fallen state of his family at this period, combined with rather expensive habits, occasioned him some pecuniary embarrassment; but he was supported under all his difficulties by a most cheerful temper, and by the hope of better days.

It was not until 1505 that the Cardinal de Medici began to take any active part in public affairs. He was then appointed to the government of Perugia, and by his firm adherence to the interests of Julius II. he acquired the unlimited confidence of that pontiff, who, in 1511, placed him, with the title of Legate of Bologna, at the head of his forces in the "holy league" against the French. At the bloody battle of Ravenna, in the following year, the Legate was taken prisoner by the French, and conveyed to Milan, where the sacredness of his function caused him to be treated with much respect. The French on their retreat took him with them; but on his arrival at the banks of the Po, he was enabled to effect his escape, and returned to Bologna, the government of which he re-assumed in his character of legate: and, while there, contributed to the restoration of his family to its former power at Florence. On this auspicious event he repaired to his native city, and continued to reside there till the death of Julius II. called him suddenly to Rome. At the scrutiny for a new pontiff, in 1513, the election was declared to have fallen on the Cardinal de Medici, who was then not more than thirty-eight years of age, and who, nevertheless, ascended the throne, under the name of Leo X., with such manifestations of good will, from

both Italians and foreigners, as had not fallen to the lot of many of his predecessors.

The new pope indicated his disposition to patronize literature by appointing as his secretaries Bembo and Sadoleti, two of the principal writers of his time. In his foreign policy, he followed the system of his predecessors in opposing himself as much as possible to the domination of foreigners in Italy. He therefore took such measures as, for the time, cleared the country of the French, and brought their king to submission; and he was no less fortunate in healing a threatened division in the Church. Leo had then leisure to attend to the welfare of literature and the arts. By new endowments, and by grants of new privileges, but still more by filling its professorships with distinguished men, invited from all parts, he restored the university of Rome to more than its former distinction. He also established, in the university of Bologna, the first professorship in Italy in the Syriac and Chaldaic languages. The study of the Greek language was a very favourite object of his patronage. Under the direction of John Lascaris, whom he invited from Venice for the purpose, a society of noble young Greeks was formed at Rome for the purpose of editing Greek authors, and a Greek press was established in that city. The pope caused public notice to be given throughout Europe, that all persons who possessed manuscripts of ancient authors should be liberally rewarded if they would bring or send them to him. Several private persons followed the example of the pope; and among these we may mention a merchant of the name of Chigi, who established a collection of works of art, and published an edition of Pindar and Theocritus.

In politics, the two principal objects which Leo kept in view were, the one to maintain such a balance of power as would protect Italy from the overbearing influence of any foreign potentate; and the other to aggrandize by every possible means the family of Medici. We cannot here enter into a statement of the various measures by which he sought to accomplish these objects, and which were not always such as became his private character as a man, or his public character as a prince and a pontiff. His conduct in violently deposing the Duke of Urbino, in order to invest his own nephew, Lorenzo, with the territories of the dukedom, is among the most discreditable of his public measures. We are not much surprised to learn that, in the same year with the completion of this object, his life was endangered by a conspiracy which was formed against him. The plot was discovered; and Cardinal Petrucci, who was suspected of being the principal, was decoyed to Rome, from which he had, in the first instance, escaped, and was hanged; and as many of his agents as were discovered were executed with horrid tortures. Others, whose guilt was not sufficiently proved to countenance their execution, were tortured, deprived of their dignities, and banished. It was believed at the time that many innocent persons suffered on this occasion; and certainly the conduct of Leo did not illustrate the attributes of magnanimity and mercy which became his place. To render himself more secure for the future, the pope, by a great stretch of his authority, created thirty-one new cardinals in one day. Many of these were his relations and personal friends, who had no apparent claim to such distinction; but there were others in the number who were acknowledged to be worthy objects of his favour.

The unbounded profusion of Leo, and his magnificent undertakings, rendered the ordinary supplies to the papal treasury altogether inadequate to his expenses. Then it was that an extraordinary issue of indulgences was thought of as a promising means of bringing all Christendom to contribute largely to the wants of the papacy. But the indiscretion with which

this traffic was conducted in Germany roused the zeal of Luther, who not only animadverted severely on this mode of raising money, but even questioned the pope's power of remitting sin. The effect which Luther's vehement remonstrances produced is well known; but Leo, who little suspected the final result, neglected at first the attacks and efforts of the powerful German; and when his interference was considered necessary, he was inclined to lenient measures. At length he was persuaded by the Emperor Maximilian to assume more rigour, and summon Luther to appear before the Court of Rome; but it was finally agreed that the Cardinal Cajetan should hear his defence at Augsburg. Nothing satisfactory was determined on this occasion, and the pope, in 1518, published a bull, asserting his authority to grant indulgences which should avail not only the living, but the dead in purgatory. Upon this Luther appealed to a general council; and when open war was thus declared, the party of the reformer appeared with a strength infinitely greater than the Court of Rome had foreseen. The sentiments of the Christian world were at that time, indeed, particularly unfavourable towards that court. "The scandal," says Roscoe, "incurred by the infamy of Alexander VI., and the violence of Julius II., was not much alleviated in the reign of a pontiff who was characterized by an inordinate love of pomp and pleasure, and whose classical taste even caused him to be regarded by many as more of a heathen than a Christian."

While open war had thus broken out in the church, Leo endeavoured, but without success, to unite the princes of Christendom in a crusade against the Turkish Emperor Selim, who had made himself master of Egypt, and whose warlike dispositions occasioned considerable alarm in Europe. Nearly simultaneously with his failure in this project, Leo sustained a severe domestic affliction in the death of his nephew Lorenzo, leaving only a daughter, afterwards the celebrated Catherine de Medicis, the Queen and Regent of France. On this event the pope annexed the Duchy of Urbino, with its dependencies, to the see of Rome, while Giulio, Leo's cousin, was appointed to maintain the family power at Florence. Meanwhile, and afterwards, the Reformation continued to gain ground in Germany; but the peace of Italy was not disturbed by foreign wars, and this tranquillity allowed the pope to indulge his taste for magnificence in shows and spectacles, and in the employment of those great artists who have reflected so much lustre upon his pontificate. His private hours are said to have been chiefly devoted to indolence or to amusements which were not always of a kind suitable to his high and reverend station. He did not, however, neglect any opportunity of aggrandizing his family and see; and it was in the midst of schemes and measures for these purposes that he died suddenly on the 1st of December, 1521, in the forty-sixth year of his age, and the ninth of his pontificate. The people in general expressed much concern at his death; but the honours rendered to his memory and remains fell much short of what might have been expected. An exhausted treasury was the excuse for an economical funeral; and notwithstanding the number of the distinguished scholars then at Rome, the task of pronouncing his funeral oration was given to an illiterate chamberlain.

Leo himself was not distinguished by solidity of acquirement or brilliancy of talent. His merit—if we may so call it—the merit which made his reign remarkable, was the good taste which directed his patronage. And yet, while he afforded liberal encouragement to useful and reputable studies, much of his patronage was misdirected both as to things and persons. It is also to be remembered that his patronage was not of

that high character which finds talent fainting in darkness, and brings it forward to the light of day; but of that sort which helps what others have helped, and completes what others have undertaken. Michael Angelo and Raffaele had both risen to fame under Leo's predecessor, Julius II., who had also planned and made a commencement of that stupendous structure the Cathedral of St. Peter. Upon the whole, Pope's description of Leo's reign may be considered somewhat flattering; but it has sufficient truth to allow it that place here which its beauty demands.

But see! each muse, in Leo's golden days,
Starts from her trance, and trims her withered boys:
Rome's ancient genius, o'er its ruins spread
Shakes off the dust, and rears its reverend head.
Then sculpture and her sister arts revive;
Stones leap to form, and rocks begin to live;
With sweeter notes each rising temple rung,
A Raffaele painted, and a Vida sung."

Our wood-cut is after Raffaele's celebrated portrait of the pontiff to whom this article relates. We have sufficient evidence that it does not give an ideal likeness, as is the case in many that have come down to us as faithful portraits, but one, the truth and resemblance of which were considered astonishing at the time it was painted. The portrait answers exceedingly well to the idea a person would form of Leo from the perusal of his life; a man of spirit, taste, and pleasure—an amiable and munificent patron of the arts, rather than an able or discreet ruler of the church. He is represented seated before a table on which lies an open book. On his right hand stands the Cardinal Giulio de Medicis (afterwards Pope Clement VII.), who appears as if attending to some orders from the pontiff, upon the back of whose chair leans the Cardinal Rossi. Raffaele has repeated the portrait of Leo in others of his works; thus, in the painting of the Coronation of Charlemagne, he has given to Leo III. the lineaments of this pope. The picture of Leo X. is on wood, and its dimensions are 4 feet 10 inches high, by 3 feet 8 inches broad.

HAWKING. - No. IV.

Continued from No. 10.

THE old Eastern travellers, Father Rubruquis and Marco Polo, whose journeys we have described in preceding numbers of the 'Penny Magazine,' make frequent mention of the practice of hawking among the wandering Tartars during the thirteenth century. Marco mentions a palace at Changa nor, or the White Lake, which the grand khan was very fond of visiting, because it was surrounded with pieces of water and streams, the resort of many swans, and with plains, where cranes, pheasants, partridges, and other birds were found in great numbers. "The grand khan," says the old Venetian, "derives the highest degree of amusement from sporting here with gyr-falcons and hawks." He also informs us that at another palace near the city of Chandu, in Tartary, the grand khan kept upwards of 200 hawks, which, during his stay there, he always visited and inspected in person at least once a week. The mews were pleasantly situated in a park, where a variety of animals of the deer and goat kind were pastured, to serve as food for the hawks and other birds employed in the chase. According to Marco, the khan had reclaimed eagles also, which were trained to stoop at wolves; and such was their size and strength that none, however large, could escape from their talons. This grand khan (Kublai), who was at once Emperor of Tartary and China, had two court officers, of the highest dignity, called "Masters of the Chase." In relating the number of his falconers, and the pomp with which he took the field, the Venetian might incur suspicion were he not fully confirmed in

all he says by several other accounts of the imposing establishments and sports of the Mongul Tartars. Marco, who was a keen sportsman and falconer himself, (as became a well-bred Italian gentleman of that period,) may often have accompanied the grand khan, or emperor, with whom he stood in high favour. He says that, after residing the usual time at the metropolis of China, he always proceeded to enjoy the field-sports in the plains of Tartary, "attended by full 10,000 falconers," who carried with them "a vast number of gyr-falcons, peregrine-falcons, and sakers, as well as many vultures, in order to pursue the game along the banks of rivers." He adds, that this host of falconers was not kept altogether in a body, and at one place, but separated into parties of from 100 to 200 men each, who followed the sport in various directions, and brought the greater part of the game they killed to the emperor. Marco continues:—"The grand khan has likewise with him 10,000 men of those who are called *taskuol*, implying that their business is to be upon the watch, and who, for this purpose, are detached in small parties of two or three to stations not far distant from each other, in such a manner as to encompass a considerable tract of country. Each of them is provided with a call and hood, by which they are enabled, when necessary, to call in and to secure the birds. Upon the command being given for flying the hawks, those who cast them off are not under the necessity of following them; because the others, whose duty it is, look out so attentively, that the birds cannot direct their flight to any quarter where they are not secured, or promptly assisted if there should be occasion. Every bird belonging to his majesty, or to any of his nobles, has a small silver label fastened to its leg, on which is engraved the name of the owner, and also the name of the keeper. In consequence of this precaution, as soon as the hawk is secured it is immediately known to whom it belongs, and restored accordingly. If it happens that, although the name appears, the owner, not being personally known to the finder, cannot be ascertained in the first instance, the bird is, in that case, carried to an officer termed *bulangazi*, whose title imports he is the 'guardian of unclaimed property.' If a horse, therefore, a sword, a hawk, or any other article is found, and it does not appear to whom it belongs, the finder carries it directly to this officer, by whom it is received in charge, and carefully preserved. If, on the other hand, a person finds any article that has been lost, and fails to carry it to the proper depository, he is accounted a thief. Those by whom any property has been lost make their application to this officer, by whom it is restored to them. His situation is always in the most elevated part of the camp, and distinguished by a particular flag, in order that he may be the more readily found by such as have occasion to apply to him. The effect of this regulation is that no articles are ultimately lost." (It may amuse our readers to compare this Tartaro-Chinese regulation in the thirteenth century with the express law about lost and strayed hawks passed by our Edward III. in the fourteenth century. We have given the heads of the enactment in the first* of these papers on hawking.) The Venetian traveller tells us that the grand khan carried his wives and the ladies of the court with him on these expeditions, and that the fair ones also had their gyr-falcons, their hawks, and other birds and beasts, with which they partook in the sports. What with ladies and their attendants, physicians, astrologers (who were never left behind), courtiers, slaves, and falconers, these imperial progresses must indeed have formed an incredible multitude. "When his Majesty," says Marco, "makes his progress in this manner, many interesting occurrences attend the sport, and it may truly be said that

it is unrivalled by any other amusement in the world!

* * * * And thus the emperor remains until the first vigil of our Easter, during which period he never ceases to frequent the lakes and rivers, where he takes storks, swans, herons, and a variety of other birds. His people also, being detached to several different places, procure for him a large quantity of game. In this manner, during the season of his diversion, he enjoys himself to a degree that no person who is not an eye-witness can conceive; the excellence and the extent of the sport being greater than it is possible to express."

In the same very interesting chapter, however, honest Marco lets us into the secret that, under this brilliant state of things, the great body of the people was oppressed by game-laws and forest-laws, which differed very little from our own. The same odious distinctions we have described as existing under our old feudal system obtained in China and Tartary. "It is strictly forbidden," says the traveller, "to every tradesman, mechanic, or husbandman, throughout his majesty's dominions, to keep a hawk, or any other bird used for the pursuit of game, or any sporting dog." To this he subjoins: "Nor is a nobleman or knight to presume to chase bird or beast in the neighbourhood of the place where his majesty takes up his residence, (the distance being limited to five miles, for example, on one side, ten on another, and perhaps fifteen in a third direction,) unless his name be inscribed in a list kept by the grand falconer, or he has a special privilege to that effect. Beyond these limits it is permitted. There is an order, however, which prohibits every person throughout all the countries subject to his majesty, whether prince, nobleman, or peasant, from daring to kill hares, roebucks, fallow-deer, stags, or other animals of that kind, or any large birds, between the months of March and October; to the intent that they may increase and multiply; and as the breach of this order is attended with severe punishment, game of every description increases prodigiously."

In speaking of Tibet, a country which was then entirely subject to the grand khan, Marco says, - "Some of the best laner falcons are bred here, and also sakers, very swift of flight, and the natives have good sport with them."

In the year 1419, about 119 years after Marco Polo's final departure from China, Mirza Shah Rokh, the monarch of Persia, sent an embassy, of which an interesting account is preserved, to the Chinese Emperor at Peking. By this time the conquering Tartars had been expelled from China, and instead of the Mongul princes, the descendants of the great Gengis and Kublai, the native Chinese dynasty of the Ming sat upon the imperial throne. The Chinese Emperor seems, however, to have been as fond of hawking as the Mongol.

The ambassadors of Shah Rokh took fine horses as presents, and in return the emperor presented them with shankars,—a much-esteemed species of falcon. One day the Persian diplomatists were summoned to court, when the emperor said to them, "I am going to hunt; take your falcons,—they will fly and give you amusement; but as for the horses you brought me, they are not good." Indeed, that very day one of Shah Rokh's high-bred horses threw the emperor whilst hunting. The fault was probably more in the rider than the steed, and when Shadi Khoja was reproached for what had happened, he told the emperor that the horse was a good horse, and had often been ridden by the great conqueror Tamerlane. By this saying Shadi Khoja lost a fine hawk, for the emperor gave one more to each of his companions, but not to him. The puissant monarch then called for a falcon, and cast it off at a crane, but the falcon returned to hand without seizing its prey, on which his majesty struck it three blows on

* 'Penny Magazine,' No. 161.

the head. It must be mentioned, however, that the emperor was old and sulky at the time.

Mr. Ranking, in his curious work on the 'Wars and Sports of the Romans and Monguls,' says, it is an old custom among the Tartars to give a fine falcon as an extraordinary present, hawking being one of their favourite amusements. In the province of Dauria, near the Amoor, there are great numbers of milk-white hawks, and from this province China is chiefly supplied. In Siberia three sorts of falcons are used for sporting: the best of these is pretty large, ash-coloured, and sometimes speckled with white. Recent travellers in central Asia make frequent mention of hawks and hawking.



[Death of the Heron.]

Mr. Johnson, in his amusing sketches of 'Indian Field-Sports,' informs us, that in his time (about a quarter of a century ago) all the native gentlemen of India, who were in the least degree fond of sporting, kept hawks of various kinds, and never travelled without them. "The largest kind," he says, "are trained to kill deer, by *pitching on their heads and picking out their eyes*: they also kill large water-fowl, somewhat like the heron; a sport affording considerable amusement. Some are very small, and are only used for killing small birds. Others are trained to hover over ponds in which there are wild-fowl, which, on being fired at, rise immediately, when the hawk darts on them, and obliges them again to drop into the water, by which means the sportsmen get many shots, and kill a great number." In describing (what he often witnessed) the number and magnificence of the hunting retinue of the Nabob-Vizir of Lucknow, Mr. Johnson draws a picture which makes old Marco Polo's accounts seem perfectly credible. On these expeditions

when a poor dove, or curlew, or any other small bird, was sprung, the hawks were loosened after it, and the fortunate falconer, whose hawk caught it, received a reward from the vizir. The Persians, who are enthusiastically fond of field-sports, still hawk at bustards, hares, herons, and partridges, and train several sorts of falcons for the purpose. They have also a particular breed which they train to fly at antelopes, and to act in concert with dogs. The best of these are of Arab breed, and their owners are said to be as curious regarding their pedigree, as they are about the descent of their finest horses.

The late Sir John Malcolm, in his delightful little work called 'Sketches of Persia,' gives some very animated descriptions of these sports. He frequently partook in them during his journeys and embassies to the court of the Shah. In speaking of his stay at Abusheher (a place on the Persian gulf), he says,—"The huntsmen proceed to a large plain, or rather desert, near the sea-side: they have hawks and greyhounds; the hawks carried in the usual manner, on the hand of the huntsman; the dogs led in a leash by a horseman, generally the same who carries the hawk. When an antelope is seen, they endeavour to get as near as possible; but the animal, the moment it observes them, goes off at a rate that seems swifter than the wind: the horsemen are instantly at full speed, having slipped the dogs. If it is a single deer, they at the same time fly the hawks; but if a herd, they wait till the dogs have fixed on a particular antelope. The hawks, skimming along near the ground, soon reach the deer, at whose head they pounce in succession, and sometimes with a violence that knocks it over. At all events, they confuse the animal so much as to stop its speed in such a degree that the dogs can come up; and in an instant, men, horses, dogs, and hawks, surround the unfortunate deer, against which their united efforts have been combined. The part of the chase that surprised me most was the extraordinary combination of the hawks and the dogs, which throughout seemed to look to each other for aid. This, I was told, was the result of long and skilful training.

"The antelope is supposed to be the fleetest quadruped on earth, and the rapidity of the first burst of the chase I have described is astonishing. The run seldom exceeds three or four miles, and often is not half so much. A fawn is an easy victory, the doe often runs a good chase, and the buck is seldom taken. The Arabs are indeed afraid to fly their hawks at a buck, as these fine birds, in pouncing, at times impale themselves on its sharp horns.

"The hawks used in this sport are of a species I have never seen in any other country. This breed, which is called Cherkh, is not large, but of great beauty and symmetry. * * * *

"The novelty of these amusements interested me; and I was pleased, on accompanying a party to a village, about twenty miles from Abusheher, to see a species of hawking peculiar, I believe, to the sandy plains of Persia, on which the Hubara, a noble species of bustard, is found on almost bare plains, where it has no shelter but a small shrub called geetuck. When we went in quest of them, we were a party of about twenty, all well mounted. Two kinds of hawks are necessary for this sport;—the first, the Cherkh (the same which is flown at the antelope), attacks them on the ground, but will not follow them on the wing; for this reason, the Bhyree, a hawk well known in India, is flown the moment the Hubara rises.

"As we rode along, in an extended line, the men who carried the Cherkhs every now and then unhooded and held them up, that they might look over the plain. The first Hubara we found afforded us a proof of the astonishing quickness of sight of one of the hawks,

she fluttered to be loose, and the man who held her gave a whoop, as he threw her off his hand, and then set off at full speed. We all did the same. At first we only saw our hawk skimming over the plain, but soon perceived, at the distance of more than a mile, the beautiful speckled Hubara, with his head erect, and wings outspread, running forward to meet his adversary. The Cherkh made several unsuccessful pounces, which were either evaded or repelled by the beak or wings of the Hubara, which at last found an opportunity of rising, when a Bhyree was instantly flown, and the whole party were again at full gallop. We had a flight of more than a mile, when the Hubara alighted, and was killed by another Cherkh, who attacked him on the ground. This bird weighed ten pounds. We killed several others, but were not always successful, having seen our hawks twice completely beaten during the two days we followed this fine sport."

On some occasions the Persians dress their hawks in what we may familiarly call leather-breeches. With Sir John Malcolm's account of this toilette and its use we must conclude our account of hawking. "When at Shiraz, the Elchee (ambassador) had received a present of a very fine Shah-Baz, or royal falcon. Before going out, I had been amused at seeing Nutee Beg, our head-falconer, a man of great experience in his department, put upon this bird a pair of leathers, which he fitted to its thighs with as much care as if he had been the tailor of a fashionable horseman. I inquired the reason of so unusual a proceeding. 'You will learn that,' said the consequential master of the hawks, 'when you see our sport:' and I was convinced, at the period he predicted, of the old fellow's knowledge of his business.

"The first hare seized by the falcon was very strong, and the ground rough. While the bird kept the claws of one foot fastened in the back of its prey, the other was dragged along the ground till it had an opportunity to lay hold of a tuft of grass, by which it was enabled to stop the course of the hare, whose efforts to escape, I do think, would have torn the hawk asunder, if it had not been provided with the leathern defences which have been mentioned." In Europe, also, with herons much care was required; and when the bold falcon had brought one of these powerful birds to the ground, it was the sportsman's duty not only to break its long legs, but to stick its strong, sharp bill in the earth, to prevent it from injuring the hawk. It should appear that with this quarry assistance was always necessary, and we see a dismounted sportsman rendering it in the engraving in the preceding page.

United States.—Common Schools.—Printed petitions to the Senate and House of Representatives are being circulated in America, embodying the propositions that "the net proceeds of all the public lands shall be annually distributed among the states in the ratio of representation, and shall be by them respectively invested for the support of Common Schools, and the interest so applied, one-half at least being devoted to the direct and essential purposes of education;" and that "until the national revenues shall be reduced to the standard of expenses, at least one-half of the surplus shall be appropriated and applied to education in the same manner as the interests of the land." These petitions are issued on sheets containing reasoning, authorities, and statements in favour of the proposed enactments. Among the statements the following are curious, and may correct some of the exaggerated reports respecting the state of education in the United States, which have been recently promulgated. After observing that "the Common School System of New York State, in its organization, comprises already a beautiful outline or skeleton," it is added, that "this country contains more than four millions of children who ought to be under the influence of Common Schools." But by a recent estimate, it appears that more than one million of children are growing up in the United States without the means of education; of these 250,000 are said to be in Pennsylvania. An estimate made in 1828 showed,

that of the children of New Jersey 11,742 were entirely destitute of instruction, and 15,000 adults unable to read. In Kentucky there are 50,000 children, of whom only one-third attend schools, and in most of the Southern and Western States this truly deplorable destitution is equally great. There is every reason to believe that a great majority of all the children in the States are only imperfectly instructed, and by incompetent teachers.—*From the Journal of Education, No. XVI.*

The Sacred Pig.—I heard Hitotte relate a story, which, as it exhibited great strength of mind, I think worth retelling. It was the custom in Otaheite to offer a roasted pig in the Morais; and it was firmly believed that the god would visit with his utmost anger any one who sacrilegiously presumed to taste of this hallowed food. Hitotte, however, having heard a great deal from the Missionaries of the fallacy of the national creed, and the impotency of their deities, resolved to put the matter to the most awful test he could imagine by tasting the forbidden food. He therefore took a piece of the roasted hog, and retired into the woods to eat it, not without great apprehension that his immediate dissolution would follow. It was really interesting to observe the varied expression of his countenance while relating the adventure;—the cunning expressive of his taking and concealing the sacred morsel;—the fall of his countenance when he told that he had done the deed;—and the gradual brightening up as he related how days elapsed and he found himself not a whit the worse for his meal. It is needless to say that this circumstance had much effect in establishing conviction in his mind.—*MS. Journal of a Voyage.*

Wallis's Visit to Otaheite.—The natives say that the visit of Wallis was predicted by one of their priests in these words:—"That a large canoe should arrive without an outrigger, having three cocoa nut trees growing out of her." The people expressed their disbelief, as it was considered impossible for a vessel to stand up in the water without an outrigger. The prophet then threw a large flat piece of timber into the sea, and bade them observe that it did not capsizes. When the "Dolphin" did arrive, they supposed it an island of the gods; and imagined the water to be fresh which ran down the sides as the men pumped out the ship. The only reason for their attack upon the vessel was to obtain one of these gods, and a bunch of red feathers was presented for the purpose of rendering them incapable of resistance, according to the superstition of the island. Some of our readers will remember that in the account of Wallis's 'Voyage' it is stated that, when the feathers had been received, the chief who brought them withdrew, and immediately after the attack began.—*MS. Journal of a Voyage.*

BRISTOL—No. II.

[Continued from No. 169.]

Our present wood-cut represents the gate of the ancient monastery of St. Augustin, to which we have already briefly adverted. We do not see much reason to lay any considerable stress on the opinions of some zealous antiquarians who are disposed to assign to the erection of this gate a date earlier than that of the monastery. This impression appears to have arisen from the absence of a date in the inscription which attributes the first foundation of the abbey to King Henry II. and Robert Fitzharding; and still more from the existence of Edward the Confessor's arms sculptured at the top of the gate on the north side,—a fact which proves very little when we consider the respect with which the memory of that devout monarch was regarded in those early times. The gate now appears to some disadvantage, in consequence of the ground having, in the course of several centuries, become raised at the base, which has in some measure marred the effect and beauty of its proportions. The whole structure also is of unequal date. The rooms in the upper part were considerably modified by several of the abbots, particularly by Abbot Newland in 1515, who placed his own effigy and that of Henry II. over the gate. More recently the gate has been somewhat modernized by

the substitution of sash windows for a large bow window with diamond panes, which occupied the whole centre, and extended from the summit of the arch to the top of the gate, where it was surmounted with a castellated summit harmonizing with the rest.

We can do little more than name the other principal public buildings. The Exchange is a handsome structure in the Grecian style, built by Wood, the architect, of Bath, at the expense of 50,000*l.*; but "exchange business" is, to a very large extent, transacted at the Commercial Rooms. The Theatre is an elegant and commodious building: Garrick pronounced it to be the most complete in Europe. It was for a long time under the management of the late Mr. Macready, the father of the tragedian. The Bristol City Library is contained in a large free-stone building erected for the purpose. The Assembly Room has a beautiful free-stone front; and the Guildhall, the Merchants' Hall, the Post Office, and the General Hospital, complete the list. In one of the squares of the town there is an equestrian statue of King William III., by Rysbrack, which has not often been surpassed by any similar work of art. There was formerly a statue of George III. in Portland Square; but during the late war, in which the commerce of Bristol suffered very much, the head of the statue was one night knocked off, and the pedestal alone now remains.

There is, perhaps, no town in England, except the metropolis, in which greater sums are expended than in Bristol, in every variety of charity, upon the sick and the poor, and for the purposes of gratuitous education. We cannot here recapitulate the establishments and endowments of this description; but it ought to be mentioned that Bristol claims the distinction of having shown to the rest of England the first example of a regular provincial infirmary. It was founded in the year 1735, through the exertions and liberality of John Elbordye, Esq., and Dr. Bonythorne, with the assistance of the corporation and the citizens at large. The Public Library consists of a very considerable collection of books; and there is also a Philosophical and Literary Institution, which possesses a theatre and a valuable museum of natural history, with mineralogical and geological specimens. Public lectures are occasionally given here, and papers read on philosophical and literary subjects (if these are the subjects); and the reading-rooms belonging to it are well supplied with newspapers and periodical publications.

The quay at Bristol is an uninterrupted wharf of hewn stone, extending for more than a mile along the shores of the Frome and Avon. Although the depth of the Avon always enabled the largest vessels to reach the quay at spring tides, they frequently sustained damage by lying aground in the mud at low water, and were delayed by the necessity of waiting for the spring tide to get out again. To remedy these inconveniences a floating harbour was completed in the year 1809, by damming up the bed of the Avon and Frome as far as the Hot-Wells, and opening a new channel for the Avon through the Red-cliff meads. It is said that this energetic effort of the merchants cost nearly half a million sterling; and it has produced a harbour capable of containing a thousand vessels, which are not only kept afloat, but are enabled to enter the locks and go to sea at neap tides. The funds for this great undertaking were raised in shares of 135*l.* each. We do not know whether the extremely heavy shipping dues at this port are owing to the expense of these works; but such dues do exist, and many of the inhabitants attribute to them, among other causes, the decline which has taken place in the trade of Bristol. Upon changing the course of the Avon, two cast-iron bridges were erected by Mr. Jessop over the new channel. The span of the

iron-work of each arch is 100 feet, and the rise 12 feet 6 inches, or one-eighth of the span. There are two other bridges at Bristol: one over the Avon, erected in 1768, in the place of one that had stood for several centuries; it consists of three wide and lofty arches, with a stone balustrade seven feet high. The other is a drawbridge, with two arches of stone, over the Frome. The wet-docks at Bristol are very extensive, and the dimensions of the merchants' floating-dock are said to exceed even those of Plymouth and Portsmouth. The situation of Bristol has always rendered it a place of commercial importance; and during many centuries it stood second to London, without dread of a rival. The part which Bristol took in encouraging the first attempts at maritime discovery are highly creditable to the city. Sebastian Cabot was a native of Bristol, and the merchants of the city contributed to the expense of the first voyage made by him and his father under the patent of Henry VII., which authorised the Cabots to discover unknown lands, and conquer and colonize them. Newfoundland was discovered; and the merchants of Bristol were among the first to engage in the cod-fishery on the coast of that island, as well as in the West India trade. That trade still forms the most important part of its commercial business; but it has a considerable general trade with all parts of the world. We have already intimated that a decline has taken place in the commerce of Bristol, and touched on the alleged causes; it appears, however, that the home trade has suffered more than the foreign, and this is attributed to the fact, that the canal communications, which have of late years been opened, have given to other ports the same facilities for internal intercourse which in former times Bristol more peculiarly enjoyed by means of its excellent river communications. The following statement, which exhibits the number of vessels, with the amount of their tonnage, that entered the port of Bristol in different years, will afford the best information on the subject. In the year 1769 the number of vessels that entered from foreign parts was 427. The remainder of the statement may be exhibited tabularly, only observing that in the years immediately following 1787 there was a considerable increase which cannot be precisely stated:—

	British Ships.	Tons.	Foreign Ships.	Tons.
1787	416	48,125	69	11,112
1820	311	53,919	46	5,652
1825	359	73,709	68	11,323
1830	357	66,479	50	7,818
1832	240	46,871	29	4,382

In estimating the importance of these numbers, it is to be considered that an immense extension of commercial transactions has taken place during the sixty years in which the trade of Bristol has remained nearly stationary. However, the importance of a trade is not exactly to be estimated by the amount of tonnage it employs; and while, in this respect, the foreign trade of Bristol is inferior to that of Hull and Newcastle, it contributes to the customs an amount inferior to that of London and Liverpool only. The manufactures of Bristol consist chiefly of glass, sugar, braziers, and tin-ware; snuff, tobacco, spirits, beer, soap, leather, gun-powder, earthenware, white-lead, and other articles of less consideration, besides such as the concourse of shipping more immediately requires.

In the neighbourhood of Bristol are found those six-cornered stones called "Bristol Stones," which were formerly in such great request; and about a mile below the city, on the banks of the Avon, is the celebrated Hot Well, the reputation of which has long rendered the vicinity the resort of invalids during the summer, and gradually produced the accommodations which are usually found in connexion with places of a similar description. The reputation of these wells was once higher than at present; but the water is still esteemed for its

purity, and large quantities are sent to different parts of the world.

In the largest extent, and for the purposes of comparison with other towns, the population of Bristol, according to the Population Returns of 1831, may be stated at 117,000, although that of the "city," properly so called, does not exceed 59,074. Of the larger number, 53,000 are males, and 64,000 females. Of the males above 20 years of age, in the larger

number, 439 are employed in manufacture, or in making manufacturing machinery; 12,640 are employed in retail trade, or in handicraft, as masters or workmen; 2,933 are capitalists, bankers, professional, or other educated men; 8,178 are labourers employed in labour not agricultural; and 707 are employed in agriculture as occupiers or labourers. The number of male servants in Bristol is 849, and of female servants 3601.



[St. Augustin's Gate, Bristol.]

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HOGARTH AND HIS WORKS.—No. VIII.



THE POLITICIAN.

THIS piece of exquisite humour is said to have been suggested to Hogarth by a living and well-known character in his day—a Mr. Tibson, laceman in the Strand, who preferred politics to trade, and the 'Gazetteer' newspaper to ledger and day-book.

VOL. III.

Never was a ruling passion,—an intentness on a favourite subject,—more happily portrayed than in the print before us. The mere position or seat of the old Quidnunc tells a story! From the way in which he has squared himself in his chair, you may see he is a

man determined not to budge until he has coned his dear paper through, to the last line, word, and syllable. His short stout legs, with their broad bases of high-quartered shoes, are set down on the floor like pillars! It would require a dray-horse to drag him from his occupation!

To throw a full clear light on his sheet (the only sheet, we may be sure, he ever reads), he has taken his tallow candle from its socket, and, indifferent to the abomination of grease, holds it in his right hand, whilst his left hand grasps his journal,—the Benjamin of his heart. The ascending flame has set fire to his hat,—has literally burnt a hole through its broad brim. The candle is also fearfully burnt down and has guttered;—the red-hot wick and the base of the flame are within the eighth of an inch of his fingers and it is difficult to say which part of him will be burnt first, his forehead, his nose, or his unflinching hand. But what of that! He is rapt, and altogether unconscious of his danger, and on he will read until the fire reaches him. Look at his countenance the while!—with its deep lines of thought, and the half acute and half solemn compression of his lips! There is many a siege and blockade in the dropping corner of that mouth, and a campaign or a treaty in every wrinkle of that face!

In the days of Hogarth, newspapers dealt only in news, and most delighted in "wars and rumours of wars." They had no idea of the step made in our times, when a single editor boasts that he directs the opinions of three-fourths of his countrymen, (poor countrymen!) and thinks it a merit to raise up an idol one day to throw it down in the dirt (if he can) the next.

Thanks to the introduction of narrow-brimmed hats, there is now no danger of our Quidnuncs setting fire to their beavers. Their heads, indeed, are sometimes affected and heated more directly by flaming leading articles and paragraphs; but the heat is all inwards. There are political occasions on which the people have to think and to act, as far as they can act legally; but the only way to think and to act rightly is to be cool, and not set their hats or their heads on fire.

Human Sacrifices in Otaheite.—It is well known that the horrid custom of human sacrifice was practised to a large extent in Otaheite when the Missionaries first arrived in the island, although it was by no means a rite of an old date. Those men were generally selected who had few friends, or who happened to have incurred the dislike of the priests. They were often marked out long before such an offering was required, and were then called "Ta-ata Taboo," that is, a man devoted to the deity: so far, however, from aspiring to this honour, if the victim suspected that it was about to be conferred on him, he generally endeavoured to escape from the neighbourhood. But if so unfortunate as to have his refuge discovered, or else to have remained without suspicion of his danger, his place of rest was noted, and "the labourers of the temple" were sent in the night to dispatch him and bring his corpse to the Morai. No such person was ever known to have been assisted in defending himself against his murderers.—*MS. Journal of a Voyager.*

MINERAL KINGDOM.—SECTION XXVI.

COPPER.

THIS metal was one of the earliest with which man became acquainted, and from very remote times it has been used for various instruments and utensils of domestic life. It is, after iron, of all metallic bodies the most generally useful in the arts, both in a state of purity and in combination with other bodies. It constitutes one of the most valuable and important products of the mines of the United Kingdom.

The appearance of pure copper is so familiar to every one as to need no description. With the exception of

the rare metal titanium, it is the only metallic substance of a red colour. Its specific gravity is 8.89, or nearly nine times heavier than water; it is a little heavier than iron, and not quite so much so as silver. It can only be melted at a very high temperature, but is more fusible than iron; it may be beat into thin leaves, and, next to iron, possesses the greatest tenacity of all the metals, for a wire one eight-hundredth part of an inch in thickness will support a weight of three hundred and two pounds without breaking. Its hardness is greater than that of either gold or silver; it is the most sonorous of all metals, and is therefore used for making cymbals, many wind instruments, and bells. It is capable of forming alloys with other metals, but in that combination remarkable changes sometimes take place. Thus, when alloyed with tin, which is also a ductile metal, the mixture (bell-metal) is quite brittle: on the other hand when united with zinc, which is a brittle metal, the mixture (brass) is nearly as ductile as the pure copper.

Uses of this metal.—Copper is found in a state of purity, or that form which mineralogists call *native copper*, and also in combination with other mineral substances, constituting a great variety of ores. These may be divided into two great classes: in the one, the copper is combined with sulphur and other metals in various proportions, or with oxygen; in the other class it is in the state of an oxide combined with acids and with water. The following tables show the great variety of composition which is to be found in the ores of this metal. They exhibit the results of analysis by different chemical philosophers, omitting, however, the more minute fractional parts. The figures express the number of grains of the substance at the head of the column which are contained in a hundred grains of the ore.

	Copper.	Sulphur.	Iron.	Arsenic.	Antimony.	Oxygen.
Yellow Copper Ore.....	30	35	32	..	..	..
Purple do.	61	24	14	..	..	..
Vitreous do.	81	19	..	..	..	..
Gray do.	53	24	23	..	..	..
Arsenical Gray do.	43	10	28	15	..	..
Antimonial do. do.	38	28	3	..	22	..
Red Oxide of Copper	91	..	..	..	..	..

	Oxide of Copper.	Water.	Sulphuric Acid.	Muriatic Acid.	Phosphoric Acid.	Acetic Acid.	Carbonic.
Blue Carbonate of Copper	69	5	..	..	..	..	26
Green ditto	72	9	..	..	..	..	19
Sulphate of Copper	33	36	31	..	..	..	..
Muriate of do.	73	17	..	10	..	..	..
Phosphate of do.	69	..	..	..	31	..	..
Arsenate of do.	49	35	..	..	..	14	..

Native copper is of common occurrence, but seldom in large quantities together in one spot. The finest specimens for museums are brought from the mines of Siberia, on the eastern side of the Oural Mountains, from Hungary, and Saxony, and very good specimens are occasionally met with in Cornwall. It is found in considerable quantity in Brazil, and also in Japan, and it is obtained rather abundantly in the vicinity of the Copper Mine River in North America. Masses of it have been found in Canada of more than two hundred pounds weight.

More than nine-tenths of the copper of commerce is obtained from those ores in which the metal is combined with sulphur and iron, and the yellow copper ore is the most abundant of these. The other combinations of the metal frequently accompany the sulphurets, but

are rarely found in sufficient quantity to be smelted by themselves. The quantity of copper contained in the sulphurets is very variable, on account of the intermixture of stony and other foreign ingredients, and an assay of the ore can alone determine its value. In some mines the ore does not contain above 3 per cent. of pure copper, and yet it pays for working. The poorer kinds of ore are chiefly sulphurets of iron, or iron-pyrites, containing copper, while the richer kinds are sulphurets of copper, or copper-pyrites, mixed with iron and arsenic in different proportions.

A considerable quantity of copper is obtained from springs containing sulphate of copper, or blue vitriol, in solution, which are frequent in copper mines, or in hills where the sulphuret occurs, the decomposition of the ore by the action of the air and of water changing the sulphur into sulphuric acid, which enters into a new combination with the metal. The copper is obtained by immersing plates of old iron in the fluid: the acid having a stronger attraction for iron than for copper, quits the latter and combines with the iron, leaving the metallic copper on the surface of the iron plates, and it is then scraped off. This process may be easily seen by dissolving a little blue vitriol in water, and if the blade of a table-knife be dipped in the solution, in the course of a few minutes it will have a bright coating of metallic copper. This is one of the most ready and correct tests for discovering if any of our food be poisoned with copper, which sometimes happens if fatty substances or acids be allowed to stand in a copper vessel not properly tinned.

A variety of the green carbonate of copper, called malachite by mineralogists and jewellers, is used for ornamental purposes; it is bright green and opaque, and is found in solid rounded masses. When these are cut through, they have a waved and silky appearance with a great variety of tints, from dark to pale green; the structure very much resembling that of the calcareous deposits from petrifying springs, called stalagmites. The finest specimens of malachite come from Siberia, from a mine not far from Ekaterinbourg; and masses have been found of such dimensions as to afford slabs for tables. There was some time ago in a museum at St. Petersburg a slab thirty-two inches long, seventeen broad, and an inch thick, which was valued according to Patrin at 20,000 francs, or about 800*l*. When set in chased gold it has a rich and beautiful effect in necklaces and earrings. Vessels are sometimes brought from China made of what is called white copper, which sells in China, when manufactured into utensils, for about one-fourth of its weight in silver. It has been analyzed by Dr. Fyffe, who found it to be a mixture or alloy of copper, zinc, and the rare metal nickel, in the following proportions:—

Copper	40.4
Zinc	25.4
Nickel	31.6
Iron	2.6
	100

Geological situation of Copper.—The great deposits of this metal occur in the older rocks, both in the sedimentary strata and in the unstratified rocks, which are generally considered to be of igneous origin, that is, granites, porphyries, and traps; and it has been met with in minute quantity in the lava of existing volcanos. Cornwall, which is the greatest copper country in the world, is composed entirely of rocks of the primary or oldest transition classes, chiefly slate associated with granite and porphyry. The slate is called *killas* in the country, the granite *growan*, and the name *elvan*, although more particularly given to porphyry, is applied also to any other rock which is found in the *killas* or granite; so that a fine-grained granite is often called *elvan*, if it traverse the ordinary granite of the country.

The copper ore is found in veins composed of a mixture of the ore with quartz or fluor spar, or both, which occur for the most part in the *killas*, generally a greenish argillaceous slate, and veins which have been worked in the *killas* have been often followed into the granite, without any change in their magnitude, richness, or general composition, although for the most part a change takes place in the quality of the vein when it passes from one rock into another. Mineral veins, although called by that name from the resemblance of their ramified forms to the veins of the human body, do not occur like these in any distinct systematic arrangement, but with the irregularity and arbitrary dispersion of chance cracks in a hard body when fractured, the cracks being afterwards filled up by a new substance injected into them. If we suppose a vertical section to be made of a country composed partly of granite, and intersected by mineral veins, it would present an appearance similar to the following figure,

Fig. 1.



where *a* is the unstratified granite, and *b* the strata of slate, in which the continuity is broken by veins filled up with various minerals, different from either the slate or the granite. It is evident that the substance of the veins is of posterior formation to the rocks in which it is contained. It frequently happens that one series of veins intersects another series, as in the following figure,

Fig. 2.



where the vein *c* has evidently been formed after *a* and *b*, because it intersects them, and the disturbing force which produced the rent that was afterwards filled by the matter of the vein *c*, was such as to throw the vein *a* off its continuous course, for the lower portion is at an inferior level to that portion which is above the vein *c*. Evidence of the same disturbance is indicated by the changes in the stratification of the slate, which are not attempted to be shown in the diagram, as it would be difficult to represent such complicated disturbances as usually appear on such occasions.

The courses of mineral veins are extremely irregular, and their phenomena are complicated in the extreme. Hence the hazardous and deceptive nature of mining adventures. The theory of the formation of mineral veins, whether as to the causes which produced the rents, or to the manner in which these rents were afterwards filled up, is involved in the greatest difficulty.

That the greater part of them were filled by the injection of melted matter from the interior of the earth, is now the prevailing opinion of geologists,—but there are many appearances in veins which cannot be accounted for on that hypothesis.

Copper ore is also found in the carboniferous or mountain limestone, as in Staffordshire, (O, diagram I, No. 51,) but very sparingly, considering the great extent of that formation. In England none of the superior strata contain more than occasional traces of copper ores, but in Germany there are beds of what is there termed *kupferschiefer*, or copper slate, which occupy the same position in the order of stratification as the red marl, K, of the series of sedimentary deposits in England, and from that slate a considerable quantity of copper is obtained.

[In our next Section we shall give some account of Copper Mines.]

MECHANICS' INSTITUTIONS.

HINTS FOR THE IMPROVEMENT AND FOR THE EXTENSION OF THE UTILITY OF MECHANICS' INSTITUTIONS.

We have pleasure in extending the knowledge of a very interesting paper by Leonard Horner, Esq. on 'Mechanics' Institutions,' which paper we abridge from the 'Printing Machine.' Mr. Horner's experience in subjects connected with the Education of the People, entitles his opinions to great attention. Most of the Mechanics' Institutions may be said by this time to have passed through a state of probation, and their success has been very various: some have gone on flourishing and increasing in usefulness from their first establishment—others have fallen off and languished; some, it is to be feared, have ceased to exist. The causes of failure have, no doubt, also been various; the difficulty of finding good lecturers has been one great source of want of success, but more, perhaps, is to be ascribed to defects in the scheme of instruction.

The audience of a Mechanics' Institution being composed of persons following a great variety of trades, to teach the processes in detail of any particular art, even if it were practicable for any good purpose in such a place, would only interest a limited number. The subjects to be taught must therefore be such as will be useful and interesting to all. The branches of science which are of most general application, are unquestionably the principles of chemistry and of mechanical philosophy; for there is no art that is practised, the processes of which do not in a greater or less degree depend upon one or other, or upon both, of these principles. To treat these effectually, that is, in such a manner that the pupil shall get such a familiar acquaintance with them as to be able to apply them in practice, a systematic course is requisite—a course well planned beforehand, from which all that is extraneous to the purpose has been carefully rejected, and in which all that is most important is fully dwelt upon. The lecturer must duly consider the capacities of his audience as recipients of what he is teaching,—not as regards their natural abilities, but their previous preparation. He must recollect that they are not like students at a college, whose sole occupation it is to learn, but persons who have spent a long day in, it may be, a laborious and exhausting employment, and with few advantages for private study: to use a colloquial expression, he must be careful not to shoot over the heads of his hearers. The lecturer must be no less on his guard against being led into the more abstruse and difficult parts of his subject by an ambition to exhibit at the conclusion of his course some distinguished pupils who, in prize exercises, may display extraordinary acquirements; for while these few would be following him, the majority would inevitably be lost, and be very likely to be thus

driven to inattention by despair: his true ambition should be to turn out the largest possible number thoroughly conversant with that which may be acquired by average talents and reasonable attention. The student, on the other hand, must recollect that, as there is no royal road, so likewise is there no mechanic's road to knowledge; that before he can get a fast hold of the information he is in search of, he must work long, patiently, and systematically. If, college lectures do comparatively little good without frequent examinations and repetitions, such a practice is doubly necessary in a Mechanics' Institution. They must be conducted, however, in such a manner as not to alarm the timid, and should be as much as possible in the style of conversation between the lecturer and his pupils, trying to elicit whether he has been rightly understood. This, with the repetition of the more important experiments, will give an ample opportunity of setting in a clear point of view and of forcibly impressing all that is most difficult of apprehension. To teach the general principles of chemistry with that copiousness of illustration by experiments which shall be most likely to fix them in the mind of the student, a continuous course of not less than thirty lectures is necessary; nor will the student have acquired a thorough acquaintance with them until he has twice gone over such a course,—reading, at the same time, a good elementary treatise. Neither can the principles of mechanical philosophy be properly explained in a course of shorter duration; and the student, before he can comprehend them, must have acquired a competent knowledge of arithmetic, algebra, and geometry. There is no shorter way: it is vain to expect that accurate knowledge in either branch can be purchased at a less cost of time and study; and without an acquaintance with algebra and geometry, the most useful works on mechanical philosophy must be unintelligible. But, under a judicious system, there is nothing to prevent a mechanic from acquiring the knowledge here spoken of, although he be daily occupied in his trade,—taking into account, also, the very limited portion of time he has at his disposal, and the other disadvantages he labours under, when compared with a young man occupied only with his education.

It must be farther remembered, that in all seminaries of instruction, unless the pupil have some object set before him which is to be the reward of successful exertion, even the well-disposed will grow languid, and sink into indifference. The number of those who toil from the mere love of learning, is small indeed. Had it not been for the high prizes which were to be won in schools and universities, science and learning would have advanced at a much slower pace than they have done. In the universities, the students are excited to labour by the degree which is to be conferred upon them, if found competent, at the close of their academic career,—an honour merely to many, but a substantial benefit to most, in their future professional prospects. Now, until something analogous to degrees be established in Mechanics' Institutions—until some winning-post at the end of the course be set up before the eyes of the student, the severer studies will never go on with alacrity, and one of the most important objects of such schools will thus fail to be accomplished. Nor will such a result argue any particular want of zeal or of capacity for such knowledge on the part of the mechanic; it will only prove that those stimulants to exertion have been wanting which all experience has shown to be necessary in order to overcome the *vis inertiae* which obstructs the progress and limits the usefulness of the greater portion of mankind.

The School of Arts, or Mechanics' Institution of Edinburgh, was founded thirteen years ago, "for the instruction of mechanics in such branches of physical

science as are of practical application in their several trades," and has confined itself almost exclusively to that object to the present day. I took an active part in its first establishment, and have never ceased to take an interest in its progress. Two years ago, the number of students, though considerable (above 200), had materially diminished; and although that falling off could fairly be ascribed, in a great degree, to circumstances independent of the management of the institution, yet it appeared to me that something was wanting to excite a sustained and lively interest in what was going on in the lecture-rooms; and I submitted to the Directors a plan which seemed to me calculated to remedy that defect. It met with their approbation, and was adopted; and although this is only the second year in which it has been in operation, there is every appearance of its being attended with the most beneficial results. The course of instruction is as follows:—

I. There is a junior class of Mathematics, which meets twice a week, and in which the following branches are taught:—

Arithmetic, including Vulgar and Decimal Fractions;

Algebra, as far as Simple and Quadratic Equations; Geometry, first and second books of Euclid.

In this class, a portion of each hour of teaching is devoted to exercises and examinations.

II. There is a senior class of Mathematics, which meets once a week, in which the following branches are taught:—

Geometry, the remaining books of Euclid;

Logarithms;

Mensuration and Trigonometry, with their various practical applications.

In this class also a portion of each hour of teaching is devoted to exercises and examinations.

III. There is a class of Natural Philosophy, illustrated by experiments, which meets once a week, and in which the following branches are taught:—

Mechanics, including Statics and Dynamics;

Hydrostatics, Hydraulics, Pneumatics, and Optics, with such additional matter as time may permit of.

A part of every fourth Lecture of this course is devoted to examinations on the subjects treated of in the three preceding Lectures.

IV. There is a class of Chemistry, in which the principles of the science are taught, together with their application in the chief arts and manufactures in the processes of which chemical principles are involved. This class meets once a week, and a part of every fourth Lecture of this course also is devoted to examinations upon the subjects of the three preceding Lectures.

V. The winter session is from the 1st of October to the 30th of April, such part of the month of April being devoted to examinations as the Directors may find necessary. The fee for each of the four classes above-mentioned separately, the Junior Mathematics, the Senior Mathematics, the Natural Philosophy, and the Chemistry, is five shillings. A ticket which gives admission to all the Lectures is 12s. The privileges of the library are extended to all students, whether attending one or more classes.

It is left optional to the students generally to attend all or any of the above classes; but in order to lead them to a systematic course of study, and to excite them to perseverance in it, the reward is held out of their being admissible as MEMBERS OF THE SCHOOL OF ARTS for life, and of thereby becoming entitled to free admission to all the lectures, and, for a very small fee, to the use of the library. Before, however, this honourable distinction can be conferred, the student is required to go through the following course:—

During the *first* year, he must attend the junior Mathematical class alone.

During the *second* year, he must attend the senior Mathematical and the Chemistry classes; and

During the *third* year, he must attend the Natural Philosophy and the Chemistry classes.

At the conclusion of the session there is an examination of the students of each class, conducted by the lecturer, in the presence of at least two Directors, or other competent judges named by them; and all those students who are found to possess a fair knowledge of the subject taught in the class, will receive an *attestation of proficiency* therein.

Every student, who at the conclusion of three years' attendance shall be able to produce *attestations of proficiency* from all the classes in the course of study already mentioned, shall receive a certificate, signed by the lecturers and two of the Directors, which shall declare that the person to whom it is granted has received a regular education at the EDINBURGH SCHOOL OF ARTS, in Arithmetic, Algebra, Geometry, the principles of Natural Philosophy and Chemistry, during three years' attendance; and that he has been found, upon examination, to possess a competent knowledge of all these branches.

The possession of such a document as this certificate cannot fail to be of great value to a young man in after life; it will be the strongest evidence that he has passed his leisure hours for three years industriously and usefully, and is therefore of a well-disposed mind; and it must be a powerful recommendation in his favour on any future occasion of his applying for a situation in a business in which an accurate knowledge of such branches of science is desirable.

It will greatly extend the usefulness of mechanics' institutions if a reading-room be attached. It must frequently happen that students belonging to them have no comfortable quiet room at home to which they can retire to study; and undisturbed quiet is especially necessary to persons in their circumstances, if the subject of the book they are reading require close attention. There is no obstacle to advancement so seriously felt by that class of persons as the want of good dictionaries and other books of reference, generally far too expensive for private acquisition; and such a reading-room, under proper arrangements, might be made to afford great facilities in this way. Besides, there are in the libraries of most mechanics' institutions large and expensive works, maps, plans, &c., which cannot be lent out, and therefore as extensive opportunities as possible should be afforded for consulting them. A reading-room well furnished, warmed and lighted, provided with some of the most useful periodicals, dictionaries, gazetteers, maps, &c., and open from six or seven to ten every evening, would be a very attractive place, and would prove of the greatest value to many. It would probably be found necessary to limit the admission to the students of the current year only, in order to prevent overcrowding. To preserve consistency in the objects of such a place, it would be indispensable to exclude newspapers: these must be read elsewhere.

OLD TRAVELLERS.—BUSBEQUIUS.—No. I.

THIS excellent traveller, who has left us an eloquent account of Constantinople and Turkey at a period when the Ottoman Empire was at its highest pitch of power and splendour, was, like Father Rabruquis, a native of the Low Countries. He was born at Commynes, a town on the river Lys, in the year 1522. He was the illegitimate son of a man of rank. His real name was Busbec, which, according to the fashion of his country and times, was latinized into Busbequius, the appellation under which he is invariably known in literature. His father, it appears, was too proud to marry a woman of inferior condition, but he brought up her child in his own house

with extreme care, sparing no expense on his education. Young Busbec's progress was very rapid, and his talents and disposition were so promising, that his father was induced to apply to his sovereign, the Emperor Charles V., for a rescript of legitimacy, which act was obtained in the usual manner by money.

Busbequius was sent to study successively at Louvain, Paris, Venice, Bologna, and Padua, which then boasted the best schools and universities on the continent. Having finished his studies, he visited London, where he passed some time with Don Pedro Lasso, ambassador at the English court from Ferdinand, who was then titular King of the Romans, but afterwards Ferdinand I., Emperor of Germany, &c. After being present in the train of his Excellency Don Pedro at the solemnization of the ill-augured marriage between Philip II. of Spain and our Queen Mary (on the 25th of July, 1554), he returned to Flanders with increased knowledge and experience of public affairs. His reputation indeed stood so high, and his friends at court were so influential, that a few months after his return from England he was selected for a difficult and most critical mission to the Turks, who had conquered a great part of Hungary, and spread terror and consternation even to the gates of Vienna. Busbequius was staying at Lisle when, on the 3rd of November, 1554, he unexpectedly received a letter from King Ferdinand, summoning him instantly to Vienna. Paying a hurried visit to the paternal estate, to take leave of his father and friends, he repaired to Brussels, where he met his friend Don Pedro Lasso, "who," he says, "spurred me on to the journey, showing me the king's letters to him (Don Pedro) too, commanding him to press me forward: so that I immediately took horse, and made what haste I could to Vienna."

Our diplomatic couriers, and other hurried travellers, who can now fly with such comfortable speed from one end of Europe to the other in an easy carriage, finding regular relays of post-horses wherever they go, and nearly everywhere, except in parts of Spain and Portugal, good roads and excellent accommodations, would shrink from such a journey as the refined and hitherto literary and sedentary Busbequius had to perform, 280 years ago, in the middle of winter. He says—"My journey from Brussels to Vienna was very troublesome, both by reason of my unaccustomedness to ride upon such inconvenient horses as I could then get, and also because the season of the year was not fit for travelling, the weather being tempestuous, the roads deep and muddy, and the days short; so that I was forced to borrow a great part of the night, and to pass through unfrequented ways in the dark, not without the greatest hazard of my life."

Having received the instructions of King Ferdinand, Busbequius prepared in all haste for his embassy. Before starting, however, at Ferdinand's desire he rode to Comora to consult with one Malvezius who had been long resident at Constantinople, and who was supposed to be well acquainted with the character, dispositions, manners, and customs of the Turks, as well as with their diplomatic craft and political intrigues. Poor Malvezius was dying at the time of a malady he had contracted during a two years' confinement in the Seven Towers, a horrible state prison at the southern corner of Constantinople, into which the Turks were accustomed then, and indeed down to our own days, to cast the ambassadors of Christian powers on any provocation. Notwithstanding his sufferings, the unfortunate chivalry calmly instructed his successor, and during two days that Busbequius passed with him, he was cautioned and stilled against the impositions and violence of the crafty and capacious Turks, and instructed as to what he was to do and say, and what to avoid in his intercourse with them.

Whereupon," continues Busbequius, "I posted back to Vienna, and began with great application and diligence, to prepare necessities for my journey. But such was the flush of business, and so little the time allowed to despatch it, that when the day fixed for my departure came, though the King did earnestly press me forward, and I had been extremely busy all the day in equipping myself, and in causing bag and baggage to be packed up, even from the fourth watch, yet it was the first watch of the following night before I could be quite ready; but then the gates of Vienna, which at that time of the night used to be shut, were opened on purpose for me."

In those days he had not far to travel before he came in contact with the Turks, whose advanced posts pressed closely upon the Austrian frontier. The day after his departure from Vienna was lost by waiting at Comora for an experienced Hungarian, who was to accompany him; but on the third day, after having crossed the river Vaga, and travelled three hours in a vast plain, he saw afar off four Turkish horse-soldiers advancing to meet him. At this sight the sixteen Hungarian hussars that escorted him were halted and sent to the right-about, lest, coming in contact with the Mussulmans, "some troublesome bickerings should have happened between them."

Being joined by the four Turks, Busbequius went on his journey. He had not proceeded far, when, on descending into a low valley, he saw himself suddenly surrounded by a party of about 150 horse. He seems to have been startled at the unexpected appearance of such a force, which, however, was only intended as an honourable escort. His description of this eastern cavalcade is lively and picturesque.

"It was a very pleasant spectacle," he says, "to a man like me, unaccustomed to see such sights, for their bucklers and spears were curiously painted, their sword-handles bedecked with jewels, their plumes of feathers parti-coloured, and the coverings of their heads being twisted linen (*turbans*) as white as snow. Their apparel was purple-coloured, or at least a dark-blue; they rode upon stately mettlesome steeds, that were caparisoned with most beautiful trappings."

These troops conducted him with much civility to the castle of Gran, which was situated on a hill above the Danube, and garrisoned by the Turks. The Hungarian city of Gran lay in the plain beneath the hill. Here Busbequius says he was entertained "not after a courtly, but after a military manner." At night the Turks spread coarse shaggy rugs upon hard boards as beds for his attendants, and there were no sheets or coverlets; "but as for myself," he adds, "I fared better, for my bed was carried along with me wheresoever I went."

The next day the Turkish governor, with all his retinue and a large body of horse, accompanied Busbequius some distance on his journey to Buda. "The cavalry," he says, "as soon as we came out of the gates, began to show me some sport,—curvetting and charging one another. They also threw their bonnets on the ground, and, galloping their horses with full speed by them, they took them up on the points of their spears; and many more such active pranks did they perform. Amongst the rest of them there was a Tartar, who had thick bushy hair hanging down over his shoulders: they told me he always went bare-headed, and would never have any other defence for his head, either against the inclemency of the weather or the hazards of battle, than his own hair." This man was probably one of the set called *Dahis* (literally, "madmen") who were the desperadoes and fanatics of the Turkish army, and whose courage, or blind fury, and self-devotion to the prophet, were generally kept alive by copious doses of opium. Until very recently,

no Turkish forces ever took the field without having a number of these madmen in their van. Upon his arrival at Buda, the pasha sent an officer to compliment him, and to inform him that a grievous malady prevented the pasha from receiving him at present.

On making inquiries, Busbequius found the prevailing opinion was, that the pasha's malady was grief, arising out of the loss of a great sum of money which had been stolen from the place where (in Turkish fashion) he had buried it. However this may have been, as soon as the pasha learned that the ambassador had with him one "Master William Quackelben, a great philosopher, and an excellent physician to boot," he entreated Busbequius to send him the practitioner that he might give him some physic. The ambassador immediately complied; but he soon began heartily to repent of the transaction. The pasha, instead of growing better after the doctor's visit, grew worse and worse,—and at last there seemed no hope of his ever recovering. Had the great man died, the Turks would have laid his death at the door of the physician, whose life under such circumstances would not have been worth much, whilst Busbequius himself would have been exposed to suspicion as an accomplice; but, luckily for all parties, after many days of anxiety and fear, the pasha was restored to health.

It was at Buda that our ambassador first got sight of the redoubtable Janizaries, who were at that time the most numerous and altogether the best-disciplined body of infantry in the world. Busbequius compares them to the Prætorian guard of ancient Rome. He says,—“Their dress is a long garment down to their ankles; upon their heads they wear the sleeve of a coat or cloak—the head is put into part of it, and the rest of the sleeve hangs down behind, flapping upon their shoulders; in the front of it there rises a silver cone, somewhat long, gilt over, and encircled with jewels of an ordinary quality. These Janizaries usually came to pay me visits by couples. When they were admitted into my dining-room, they bowed down their heads and made obeisance, and presently they ran hastily to me, and touched either my garment or my hand as if they would have kissed it, and then forced upon me a bundle or nosegay of hyacinths or narcissuses, and then presently retired backward with equal speed to the door, that so they might not turn their backs to me (for that is accounted indecent by the rules of their order). When they reached the door, there they stood, with a great modesty and silence, with their hands upon their breasts, and fixing their eyes upon the ground, so that they seemed more like monks than soldiers. But when I had given them some cash (which was what they came for), they bowed their heads again, and, giving me thanks with a loud voice, wished me all happiness, and departed. The truth is, unless I had been told before what they were, I should have taken them for a kind of Turkish monks, or fellows of some college or other amongst them. Yet these are the Janizaries that carry such a terror with them wheresoever they come.”

When Busbequius compared the Janizaries to monks he was probably not aware how many truly monastic features were included in the original institution of that powerful corps. At their first establishment, in the reign of Amurath I., the Janizaries were wholly composed of Christian youths, the children of the conquered or captured, who were taken when young, brought up most carefully in the Mohammedan faith, and educated to the use of arms. This new militia was consecrated and named by Hadji-Bektash, a celebrated dervish or Turkish monk, who stretched the broad sleeve of his robe over the heads of the principal officers, loading them with blessings, and promising them, in the name of Allah and Mahomet, a most brilliant series of conquests and success, and called them *Yeni-cheri*, which means

“The new troop.” For these reasons the Janizaries ever afterwards adopted the surname of *Bektashis*, considered the dervish in the light of their patron saint, and adopted the sleeve of his robe in their uniform. They lived together in odas, or companies, having nearly everything in common, like some of the orders of the Catholic monks, and like monks they were, by the original laws of their incorporation, condemned to a life of celibacy. In after years these severe laws were set aside—they ceased to be recruited by Christian youths—one by one nearly all their original institutions were departed from,—and finally, the body the dervish had blessed, instead of being the best disciplined and bravest of troops, became the most turbulent, unwarlike, and contemptible, which they certainly were when the reigning Sultan Mahmound effected his horrible destruction of them some ten years ago. But at the time of our traveller their discipline was at its most perfect stage, and their organization had very recently been revised and invigorated by Solyman the Great, who was perhaps, on the whole, the most energetic and severe of all the Turkish Sultans. At the end of his journey, when Busbequius was admitted in state to an audience of the great Solyman, he gives the following additional and graphic description:—

“It was all hush; not so much as a word spoken among them all—no humming noise as among our multitudes—no jostling one another,—but every particular man quietly keeping his own station. * * * * Among the rest I most admired the Janizaries. Though there were several thousands of them, yet they stood at a distance one from another, silent and motionless,—stock still, as we say, as if they had been statues; so that I, who was at some distance from them, at first thought verily they had been statues, till being told to salute them, as the custom is, I saw them all bow their heads at once, by way of re-salutation unto me.”

THE BLACK GATE OF TREVES.

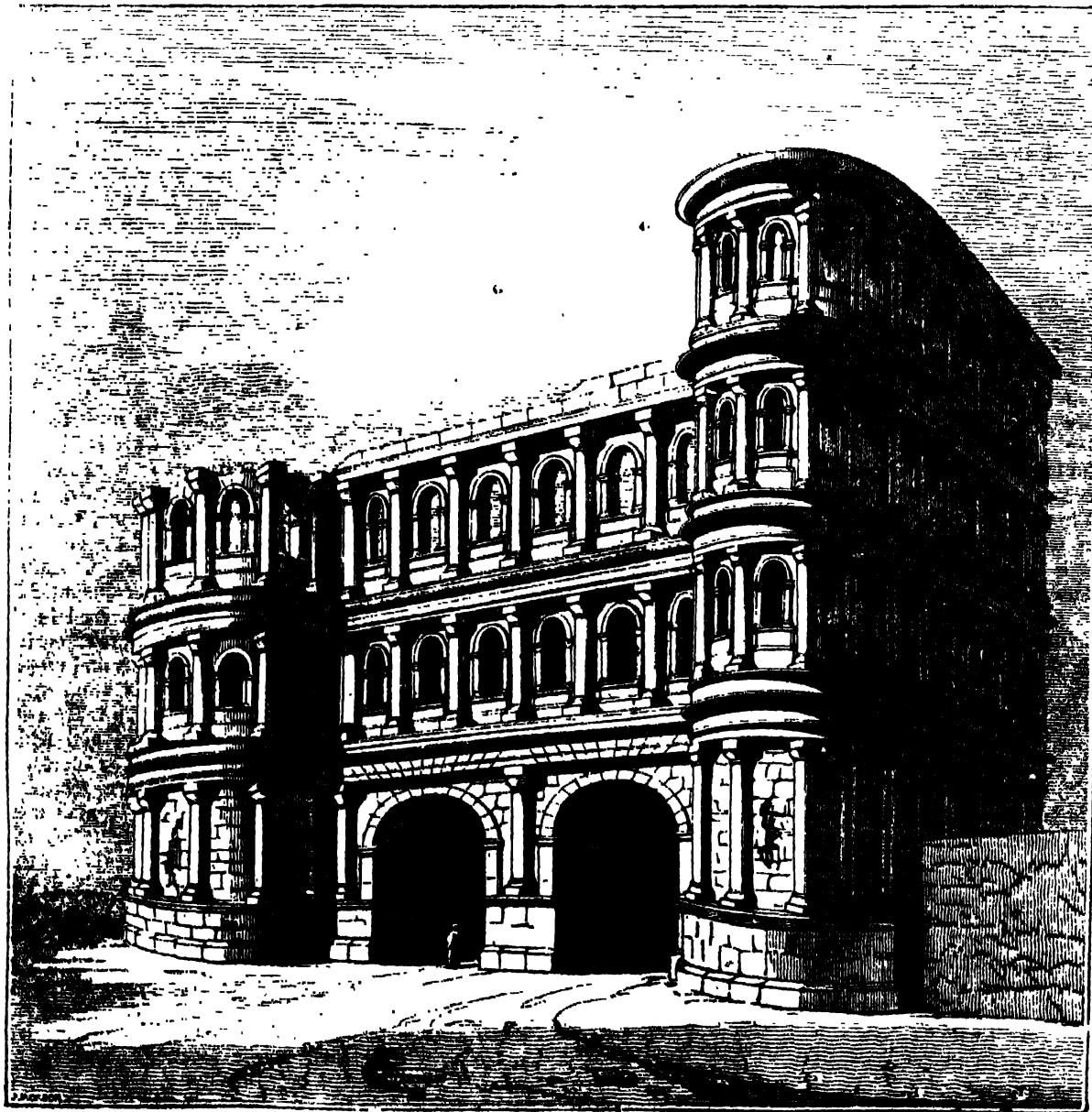
TREVES, in German *Trier*, is perhaps the most ancient town of Germany. It was a place of considerable importance in the time of Julius Cæsar, as the chief city of the Treviri, and is often alluded to by Tacitus. Ammianus Marcellinus called it a second Rome, from the magnificence of its public buildings; and the emperors frequently made it their place of residence. Many Roman remains are still to be found, and coins, medals, and inscriptions are not unfrequently discovered in the neighbourhood. The remains of the baths are extensive; but scarcely any traces exist of the circus and amphitheatre. The most important Roman monument is that of the arch called the “Black Gate,” a representation of which is given in the engraving, and which appears never to have been completed. The successive ravages of the Huns, the Franks, and the Normans, did much towards the destruction of the Roman magnificence for which Treves was once celebrated, and time has effected the rest. The Black Gate is still in a good state of preservation. The piers of the bridge on the Moselle are the work either of the Romans or Gauls. The Cathedral of St. Peter, built on the only hill in the town, is a large and massive edifice. The altars and a marble gallery also render the Cathedral an object of interest. Another church, that of St. Simeon, is said to occupy the site of the building used by the Gauls for their public meetings, and by the Romans for a capitol, or town-house. The Elector's Palace is converted into barracks, and the University, established in 1454, has been changed into a Gymnasium. The Public Library contains about 70,000 volumes, and there is a society established in the place which possesses a good collection of antiquities and natural curiosities. There is some trade carried on in

wine, grain, and wood; and in the environs are to be found indications of iron, copper, lead, and silver.

It is said that the Christian faith was introduced at Treves during the life of St. Peter, and that one of the seventy-two disciples was its first bishop. The date at which it was erected into an archbishopric is disputed. Some accounts say that Pope John conferred this dignity in 969. Soon after this period, the archbishops exercised all the authority of sovereign princes, and this ecclesiastical government continued for several centuries, the archbishops nominating the magistrates, fixing the taxes, and keeping the keys of the city. The archbishops were likewise electors of the German empire, and consequently possessed of high political privileges. The pretensions of their ecclesiastical governors, were often opposed by the inhabitants of Treves, and the Emperors occasionally interfered in these disputes, and obtained the concession of a few privileges for the struggling people; but in 1569 it was besieged by one of the archbishops, who raised the siege on condition of being allowed to re-enter the town with his troops. In 1585, in consequence of a decree of the electors, it was fully placed

under the power of its archbishop, and was compelled to endure additional ecclesiastical burdens. In 1681 Treves was taken by the French; and in 1703, 1705, and 1734 they again rendered themselves masters of it. On the 8th of August, 1794, it once more fell into the power of the French, who made it the chief town of the department of the Sarre. The electorate was suppressed, and during the time that it was under the administration of France, the convents and monasteries were placed under due regulation, and encouragement was afforded to the manufactures of the place, consisting of woollens, cottons, and leather. Since the Peace of Paris, Treves has been transferred to the dominion of Prussia, and is now the capital of a government of the same name on the Lower Rhine. The number of inhabitants in Treves is under 10,000.

Treves is situated in the centre of a large valley, lying open to the north-west and south-east, but confined on the other side by gentle eminences covered with vines. The Moselle runs past the town, the environs of which abound in gardens delightfully situated, and command landscapes of almost unequalled beauty.



[The Black Gate at Treves.]

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ALGIERS.



[City of Algiers.]

THIS remarkable city is situated in $36^{\circ} 49'$ north latitude, $3^{\circ} 25'$ east longitude, on the southern shore of the Mediterranean Sea, the waves of which wash its walls. It is built in the form of an irregular triangle, the base of which is formed by the sea-coast. The streets of the town are remarkably narrow, filthy, and uneven; very few of them cross others at right angles, and very few are straight. The principal street extends from east to west, traversing the town in its greatest breadth: its length is 1200 paces, and its breadth twelve. It contains the best shops, the houses of the principal merchants, and the market for corn and all provisions: in all the other streets it is rarely that two persons can pass abreast. The inconvenient construction of the streets manifests not only the bad taste of the inhabitants, but indicates the absence of those numerous and complicated relations which are found in modern European towns, as well as the want of vehicles of burthen or convenience. Similar causes produced towns of a similarly bad construction in Europe in the middle ages. The houses, as in most other Moslem towns, are square, enclosing an open court in the middle, into which, and not into the street, all the windows open. Previously to the French expedition of 1830, an order of the Dey was in force which directed that every householder should whitewash the walls of his house once every year; this practice gave to the city, as viewed from a distance, an appearance which a French writer compares to that of an immense piece of linen extended in the sun: the glare of these white walls was very distressing to the eyes. The roofs, as in most southern and oriental towns, are flat, and in the evening the families resort to them to enjoy the sea-breeze. Formed into terraces, they often support gardens with pavilions, or closets, to which the master of the house withdraws at the hour of the *siesta*; and, reclining upon a sofa, amuses himself by smoking the tobacco of the Levant, or by chewing opium, while his attention seems directed to the sea, the softened roar of whose waves lulls him to slumber. As the houses are contiguous, a person may walk from one end of the town to the other along the terraces; but it is, nevertheless, very rare that any one complains of having his house robbed. House robbery does not indeed often occur in any of the Mohammedan towns; and, in the instance of Algiers, there was, previously to the French conquest, a severe law which punished with death any one found in the house of another without being able to assign a legitimate motive for his presence. Some few houses are of a very superior description, being paved with marble, and lined with wainscot, carved with some elegance, and gilt or painted in the best style of Moslem taste. There are some handsome buildings without the town, and a great number of tombs, some of which are furnished with oratories, to which the inhabitants resort every Friday.

The town of Algiers contained thirteen large mosques, with minarets, and about seventy small ones, or chapels, as we should call them, belonging to private individuals. There were also a synagogue for the Jews, and a chapel and hospital for the Christians, the last of which was supported at the expense of the Spanish government. The palace of the Deys was in the lower part of the town; but the late Dey had his residence within the citadel, at the highest point of the city. The town derives from the country a tolerable supply of water, which is brought to it by an aqueduct, and then distributed by conduits to the different parts of the city. Algiers contains the usual proportion of baths and coffee-houses, but there are none that appear to claim particular notice. The batteries which defend the town towards the sea are considered very strong, but those on the land side are so weak and exposed that they offered no very serious obstacle to the progress of the French, who

approached the place in that direction. The mole constructed by Barbarossa's brother, Khair-ed-din, is built on a small island that faces the town, in the form of a semicircle, with a large opening into the haven, which is 150 fathoms long and 80 broad; and in which the largest vessels may ride in safety. The mole is defended by a castle, which stands upon the solid rock, and which also serves as a light-house. It has three batteries of cannon. At the south end of the island there is another fort, consisting of three batteries to defend the entrance of the harbour.

The population of Algiers was estimated at 70,000 before its subjection to the French, since which it has undergone considerable diminution—perhaps of one-fourth—by emigration; but, on the other hand, it is to be remembered that the French army of occupation in the territory amounts to 24,862 men, with 2,775 horses. It appears from the French *Annuaire d'Alger* for 1833, that the prices of commodities have undergone a very considerable increase during the period in which the town has been under French authority. Thus, the average price of an ass has augmented from 12s. to 2l. 10s.; a horse from 2l. to 8l.; a mule (the use of horses was interdicted to the Moors) from 6l. to 14l.; an ox from 15s. to 2l. 10s.; and a sheep from 2s. to 10s.: the camel, of which the French make no use, has preserved its former price. The prices of other necessaries have increased in nearly the same proportion as those of animals: thus, for instance, the value of corn and wood has been doubled.

Previously to the French invasion the state of Algiers was nominally subject to the Turkish sultan, but was, in point of fact, perfectly independent. The Turkish dominion at Algiers originated with the famous Turkish corsair whom we call Barbarossa, but whose real name was Horush, or Baba (Father) Horush, as his men were accustomed to call him. This person was called in by the Algerine Moors in 1516 to assist them against the Spaniards, and availed himself of the opportunity to make himself master of the place; but he ruled so tyrannically as to provoke the Moors to revolt, and he was killed in 1518, fighting at the head of his Turks. He, however, left a brother to succeed him, who, in order to secure his authority, placed himself under the protection of the then mighty Turkish empire, the ruler of which, Selim I., appointed him Pasha and Regent of Algiers, and sent him a body of Janissaries. From that time the Sultan used to appoint the pasha of Algiers, who was at the same time commander of the forces, and to send men and money for the service of the garrison. But in the seventeenth century the Turkish militia obtained the right of choosing their own commander, and of paying themselves out of the revenue of the regency: the Sultan, however, continued to send a pasha, as civil governor, until the beginning of the last century, when Baba Ali Dey, a chief of the militia, seized the then pasha, put him on board a ship, and sent him back to Constantinople. The rebel did not omit to send by the same vessel envoys with rich presents to the vizier and other principal officers of the Porte, intimating to them that the rejected pasha had treacherous designs, and that it would be well that the chief of the militia should in future perform the duties of the civil governor also, subject, of course, to the approbation of the sultan. The Porte was obliged to wink at this transaction; and from that time the Janissaries, with their chosen chief, have been absolute masters at Algiers. The dignity of Dey was one which the lowest soldier might hope one day to fill; but it was held by a most precarious tenure, as the lives of comparatively few of these military governors have been allowed to reach their natural termination.

The piratical character of the state appears to have

been derived from *Barbajossa*, who left his ships to his brother. From that time down to a very recent period the piratical pursuits of the Algerines, with their concomitant barbarities, constituted a nuisance which it is marvellous that the powerful maritime states of Europe should so long have tolerated. It is true that attempts have been made at different times to put an end to it; and some of the more important of such attempts require to be noticed.

The first was made by Charles V. in 1541, at the urgent entreaty of Pope Paul III., who was greatly alarmed at the increasing power and audacity of the Algerine pirates, who did not respect even the patrimony of St. Peter. The emperor, whose own Spanish territories on the Mediterranean were daily exposed to insult and injury, and who was not without the hope of adding one more to his many crowns, readily undertook to put down the nuisance, having first taken the precaution of obtaining a promise of co-operation from several Arab chiefs. The fleet destined to this service left Carthage on the 15th of October, in the above year; but its formidable appearance did not intimidate the pirates, who, being assisted by a terrible tempest, obtained an easy victory over the imperial fleet. Thenceforth the Algerine corsairs deemed themselves invincible, and their insolence and rapacity increased in proportion. The states of Europe seem to have entertained nearly the same opinion of them; for we soon after find nearly all of them, with the exception of England, forming alliances with the Algerines, and agreeing to purchase exemption from the attacks of the corsairs by certain periodical payments which the Algerines themselves called "tribute"—and not without reason. These tributes continued, in most instances, to be paid down to the year 1830.

The next great expedition against Algiers took place in 1681, when Louis XIV., indignant at the outrages, in violation of existing treaties, of which the Algerines were almost daily guilty, sent the Admiral Duquesne against them with twelve ships of war, fifteen galleys, three fire-ships, and several small vessels. Five bomb-vessels, under the orders of the celebrated Renau, who originally devised the means of rendering bomb-mortars available in vessels, completed this formidable armament. Algiers was then, for the first time, bombarded with such vigour that the Dey yielded, and one of his ministers went in his name to the court of Versailles to ask pardon for the infractions of treaties of which his master had been guilty, and to promise better conduct in time to come. But three years had not elapsed before they recommenced their insults upon the French flag, and were punished anew by Marshal d'Estrees, who bombarded their capital and reduced it to ashes, but not until all the French in the city had been murdered, and their consul had been fastened alive to the mouth of a cannon and shot against the bombarding fleet. This affair, which ended in the most abject submission, obliged the Algerines to be somewhat more attentive to the obligations of treaties, and more careful how they incurred the displeasure of the greater powers.

From this period until the French expedition of 1830, the only expedition of importance against Algiers was that of Lord Exmouth in 1816. As soon as the termination of the continental war allowed leisure to attend to this object, a squadron was sent to Algiers under the orders of that admiral, who was instructed to require that all the Christian slaves in the Algerine dominions should be given up on the payment of a stipulated ransom, and that the system of Christian slavery should in future be entirely relinquished. The Algerine government, under the awe which the immediate presence of the English fleet inspired, was all submission, and concluded a treaty on the above terms.

But the fleet was scarcely departed when these terms were violated in the most shocking manner by the massacre of a large body of Neapolitan fishermen at Bona. This intelligence reached England almost at the same time that the treaty was brought home by Lord Exmouth, who speedily set sail again with augmented force to avenge this violation of the law of nations. The Dey, who was sensible of what might be expected, made every preparation for defence. His strengthened bulwarks, however, availed him little against the force and resolution of a British squadron. On the 27th of August, after a most desperate conflict, the Algerine fleet was reduced to ashes,—the powerful batteries which defended the harbour were destroyed, and Omar, the Dey, had no alternative but to submit to the humiliating conditions imposed by the English admiral, which were,—the restoration of all his present captives without ransom,—with the repayment of ransoms formerly received, and the abolition for ever of Christian slavery in his dominions. The Algerines still, however, retained the right, as an independent power, of declaring war with any state they chose, and of seizing its merchant vessels, and imprisoning the crews until peace should be concluded. The proximate cause of the French expedition against Algiers in 1830 was an insult offered by the Dey to the consul Deval in the year 1827. The expedition was preceded by a blockade of two years which cost France nearly a million sterling. The expedition which ultimately proceeded with the intention of taking possession of Algiers, commenced its operations against the town on the land side in June 1830; and, on the 4th of July, they acquired possession of the "Emperor's Fort," which commands the city. On the following day the town surrendered to General Bourmont, on the conditions that persons, private property, and the religion of the country should be respected; and that the Dey and his Turkish militia should be at liberty to quit Algiers, carrying with them their personal property. The French then took possession of the town, the castles, and every kind of public property, among which were twelve ships of war, 1500 bronze cannon, and about two millions sterling in gold and silver. The last of the Deys withdrew to Europe; and Algiers, with some neighbouring towns, remains in the possession of the French, whose government does not appear to have any intention of relinquishing the footing thus acquired on the southern shores of the Mediterranean.

As the chief wealth of the Algerine state proceeded from the plunder of Christian vessels, and the sale, ransom, or profitable labour of their enslaved crews, the Dey must really have had great difficulty in carrying into effect treaties which contracted the limits of depredation, and diminished as well the revenues of the government as the profits of powerful individuals. Hence such treaties excited great discontents among the young and adventurous corsairs, diminished the popularity of the Dey, and not seldom endangered his life. The corsairs formed a sort of republic among themselves, of which the *reis*, or chief captain, was the head, and the inferior officers formed a sort of council under him. They sometimes combined the pursuits of piracy and commerce. When a prize was brought in, it was customary for the prisoners to be paraded before the Dey, who had the first choice of a certain number for his own use. The number which should fall to his share was limited by custom, but it was not unusual for him to indulge in the liberty of exceeding his fair proportion. Of the Dey's captives, some were employed in the service of the palace, and others were sent to the public works: the last had to endure great hardships. They were compelled, with a little aid from a *schiaer* to drag enormous stones from the quarries, while the

attended with whips to urge on those whose labours appeared on any occasion to slacken. Their daily food consisted of two small loaves of very bad bread, and a certain quantity of oil; and at night they were locked up in large buildings, destitute of light, and without any beds on which they might lie down. The fate of those who became the slaves of private individuals varied with the dispositions of the masters; but, with some exceptions, it was much less severe than that of the public slaves, whose condition we have just mentioned.

In the preparation of this article some assistance has been afforded by the article "Algiers" in the 'Penny Cyclopædia.'

Anecdote of Rats.—A correspondent transmits us the following curious anecdote, furnishing another instance of the occasional confidence of animals in others which they are supposed to regard generally as their natural enemies. It would have been interesting to have known by what process the strange familiarity it describes was acquired. "Some years since, I lived in the village of Ickleton, in Cambridgeshire. After my shooting excursions, the dogs were fed in their kennels, the food being placed in a long trough. To this duty I generally attended myself. Upon one occasion, after feeding the dogs, I looked into the kennel through a hole in the door, and was somewhat astonished, not at perceiving a number of rats there, but to see them in the trough, quietly and fearlessly partaking of bread and milk with the dogs, who seemed to pay no attention to such 'small deer.' I doomed the rats to destruction; and the next day placed the trough in such a position, that a gun pointed through the hole would rake it from one end to the other. At the usual hour the food was placed as a lure, but the dogs were kept out—in vain. I could perceive the head of a sagacious old rat, peering out at more than one hole, and from under the manger, for the purpose of reconnoitring; but none descended. Having waited half an hour to no purpose, I let in the dogs, and in a few minutes they were again feeding cheek by jowl. Had I not ascertained this, I might have supposed that altering the position of the trough, or some other trifling disarrangement of the economy of the kennel, had aroused the suspicions of the little creatures. They seemed, however, to be aware that their safety was connected with the presence of the dogs."

HISTORY OF GAS.—No. V.

(Concluded from No. 170.)

OIL-GAS.

As early as the year 1805, Dr. Henry, to whose experiments on gas we owe many of the processes now in use, published the result of his experiments on the destructive distillation of oil; from which he stated a gas might be procured which would afford a better light than any other material he had employed. Notwithstanding this paper, and another to the same effect published in 1808, no attention appeared to be paid to the subject for many years, and coal-gas engrossed all the attention of manufacturers. But when gas-making became a profitable business, other processes were investigated by which a share in the advantages might be obtained, the writings of Dr. Henry were naturally adverted to, and oil was experimented on. The first person who adopted oil-gas as a manufacturing speculation was Mr. John Taylor, who obtained a patent for an oil-gas apparatus in 1815, although, from some unforeseen difficulties in the process, he was unable to introduce it with success until 1819.

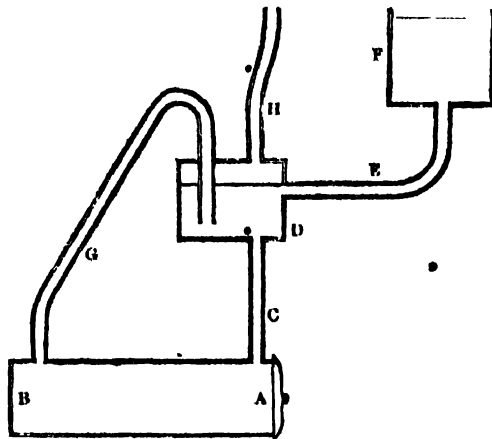
The principle on which oil-gas is procured affords in solicity a remarkable contrast to the complicated and elaborate purifications demanded in coal-gas. A stream of oil is projected into a red-hot vessel filled with pieces of coke or brick; it is converted into gas, which passes off

through a pipe issuing from another part of the retort, and little more remains to be done than to cool it, and to deposit it in the gasometer. The constant filling and emptying of retorts, the separation of tar and oil, the purification by lime, and consequent dirty processes indispensable in coal-gas, are all avoided; the machinery is of very moderate dimensions and requires comparatively little attendance, and the gas, when made, has a considerably greater illuminating power than that obtained from coal, varying, according to different experiments, from double to quadruple. It would appear from this statement that oil-gas must decidedly obtain a preference over that procured from coal, and that in future no more coal-gas would be made. But there was one advantage possessed by coal over oil, sufficiently important to outweigh all others, namely, the cheapness of the gas it affords, which, after much conflicting evidence, has been finally established. It appears at first that there could be little difficulty in coming to a decision on this point; but there were many circumstances attending the question which rendered it liable to dispute. One was the different illuminating power possessed by the two gases; the oil-gas being admitted by the most strenuous advocates of coal-gas to have the advantage. The difficulty consisted in determining the amount of this superiority; the defenders of oil-gas asserted that a given quantity gave four times as much light as an equal bulk of coal-gas, while the other party declared that the proportion was barely double, and some went so far as to say that there was little difference between the two gases, or at most that the light produced by oil-gas was only a fourth greater than that of coal. Such a discrepancy in a case admitting of direct verification must appear strange, and has been usually set down to the account of wilful misrepresentation. It is probable that prejudice may have swayed the opinions of all parties, but the truth is that oil-gas is very variable in quality; some oils producing a gas of much greater power than others, and the same oil under careful management giving a gas twice the value of what would be procured with less attention: nay, that the very same gas, collected in a gasometer, will be found to vary considerably according to the time when its qualities are experimented upon; being, when fresh made, much better than when it has stood a few days. A careful experiment showed, that, with fresh-made gas, a burner consuming 206 inches per hour gave a light equal to one candle, but that, after five days' standing, 257 inches were requisite to produce the same light. But though all these causes of uncertainty were removed, and the two gases should always be taken at their most favourable state (for coal-gas varies in quality, though not so greatly as oil-gas), there will be still a subject of difficulty in the size of the burner. We have already stated that the greater the light produced from the same burner, the less is the proportion of gas consumed; for example, that an Argand burner consuming three feet of gas per hour gives a light five times as great as it would do when consuming half that quantity of gas. Now in the experiments made to ascertain the powers of coal and oil-gas, equal burners have generally been used; the best gas has consequently been burned at a disadvantage, being brought down to the power of the inferior gas, and the burner therefore consuming much less than its full supply.

When all these circumstances are considered, it will not appear strange that experiments made with perfect good faith might produce very various results; and even now that the matter is much better understood, there is by no means a general consent as to the value of the two gases, though we shall not be wide of the mark if we estimate the illuminating power of oil-gas double that of coal-gas. The expense of coal-gas,

in an establishment producing 50,000 feet per day, has been estimated at 11s. per 1000 feet, including coal, wages, machinery, and interest of capital, while the same quantity of oil-gas may cost about 35s. To produce the same quantity of light with oil-gas, the expense would therefore be about half as much again as with coal; consequently there can be little hesitation in preferring coal to oil-gas in such cases. But the cost of coal-gas is materially enhanced in smaller establishments,—such as are required in provincial towns, or detached buildings,—while oil-gas may be made nearly as cheap at home, with a little apparatus, as at the largest manufactory. We may finally come to the conclusion, that the small space occupied by the apparatus, the dispensing with at least one-half the capacity of the gasometers, the absence of condensers and purifiers, and the comparative freedom from nauseous smells, will give oil-gas the preference in all cases, except those where the making of gas is a trade conducted on a scale of considerable magnitude.

The mode of making oil-gas may be understood at once by a reference to the annexed figure:—



A B is a retort partly filled with pieces of coke or brick. C is a pipe, which admits oil from the reservoir D into the retort. The oil is constantly dropping into the retort, and as constantly entering the reservoir by the pipe E from the oil-cistern F. As soon as the oil reaches the hot coke or brick, it is decomposed, converted into gas, and sent off through the pipe G, one end of which dips into the oil in the reservoir D, which is always kept filled to the same height. From the reservoir it passes through the pipe H into the gasometer. The object of making the gas pass through the oil is to cause it to deposit any portion of the oil which may have been merely evaporated, or converted into a sort of steam, without being decomposed. This steam becomes oil again, and is ready to pass again into the retort. When the gas is produced rapidly, it is considered useful to pass it through water in order to cool it, but it will generally be cooled enough by the water of the gasometer. This is the whole process. Several additional details are important to the manufacturer, for the more ready carrying off the gas, and the more complete deposition of impurities; but the mode of its production may be seen better by the above figure than by a more complex apparatus. Oil-gas companies have been formed in London, Dublin, and New York, at Hull, Norwich, Taunton, Plymouth, Liverpool, Colchester, and some other towns. The success, as far as brilliancy of light is concerned, has been complete, but how far it has answered as a profitable speculation we are unable to say. At some of these places we are aware that coal has been substituted for oil; possibly the extension of the manufacture may have occasioned the change, from a knowledge of the superior cheapness of coal-gas when obtained on a large scale.

A great deal of excitement at one time existed as to the danger to be apprehended from gas, and two or three accidents happened which for some time delayed the spread of this valuable light; but they were so unimportant, and so few in comparison of the magnitude of the operations, that they might rather be taken as evidence of the little danger of gas. Means were taken to prejudice the public, and calculations were entered into comparing the power of a gasometer full of gas with that of barrels of gunpowder; without noticing that the worst effects of gunpowder arise from its rapid combustion, while gas burns slowly. It is true that when gas is mingled with from five to ten times its volume of air, it will explode with rapidity; but such a mixture could scarcely occur in a gasometer unless purposely made, and then all the calculations would be at fault, from the much smaller quantity of gas which would be contained in the gasometer. A 'Report,' by Sir William Congreve, dwelling very unfairly, in our opinion, on the dangers of coal-gas, gave rise to a parliamentary investigation in 1823. After a fortnight's attentive examination of evidence, the committee came to the conclusion that there was very little cause for apprehension and no necessity for legislative interference. The only danger to the public appears likely to arise from the escape of gas in confined places, such as cellars, cupboards, and enclosed shop-counters, through which a pipe might pass: a flaw in such a pipe might in a few days emit gas enough to form a dangerous mixture, and a candle incautiously introduced might produce an explosion; careful persons will not allow pipes to be laid in such situations, or, if that cannot be dispensed with, they will not bring a candle into them without due precautions. Little danger need be apprehended from an escape into any other place, it having been calculated that a hole of one-twentieth of an inch in diameter, emitting gas at the ordinary pressure into a room of ten feet square, would require two or three days to form an explosive mixture, and not then unless the room were nearly air-tight*.

PARLIAMENT OF EDWARD I.

PINKERTON, in his 'Iconographia Scotica,' published in 1797, gives a curious print of a parliament of Edward I., "taken from a copy, in the collection of the Earl of Buchan, from an ancient limning, formerly in the College of Arms, London." On a throne, at the upper end, sits the king, with his name and arms over his head; and, similarly distinguished by their names and arms, sit Alexander king of Scotland, and Llewellyn prince of Wales, the former on Edward's right hand and the latter on his left, on seats a little less elevated than his own. Beyond king Alexander, but on a lower seat, is placed the Archbishop of Canterbury, while the Archbishop of York is similarly seated near Llewellyn. A woosack lies crosswise of the House, and on it, in front of the throne, sit four persons, evidently the chancellor and the other chief judges of the courts of law. Two other woosacks are placed at right angles with the former, and on each of them sit four persons, doubtless intended for the other eight judges. Another woosack is placed crosswise of the House, on which are seated four persons with their faces towards the throne, with their heads uncovered, and who these are it does not seem easy to determine. Behind these persons, and with their faces also towards the throne, are two persons standing uncovered with something like open papers in their hands, apparently clerks. Behind these clerks there is a cross-bench, on which sit seven persons

* We are indebted for a portion of the details above given to Matthews's 'History of Gas Lighting,' particularly in that part of our sketch which narrates the first adaptation of gas to economical purposes, and its consequent progress.

covered, all with their faces towards the throne, and dressed in gowns or robes; and the right-hand man, who appears to sit somewhat higher than the rest, is attired in a black gown with a chain round his neck. Smith, in his 'Antiquities of Westminster,' is inclined to think that they are the lesser barons, or county representatives, and that the person with the chain is their speaker, whose office at that time seems to have been much the same as that of the foreman of a jury at present, namely, to collect their opinions individually and declare the result collectively in the name of the whole body. Each side of the room contains two benches at right angles with the throne: those on the left have two bishops and five peers on one seat, and seven peers on the other; and at the upper end of the front bench on this side, and on a separate seat placed a little more forward than the bench, sits the prince, the son of King Edward, afterwards Edward II. The mitred abbots are placed on the other or right side of the House, and on the bench nearest the wall; six of them on that bench, and thirteen more on a return which it makes at right angles, so as to come behind the above-mentioned bench containing the seven persons. The other bench on the right side of the House contains six bishops seated just before the six abbots. Some persons, apparently attendants, are also introduced, such as a nobleman uncovered, with a herald, also uncovered, near him, standing behind near Prince Edward. Between the king of Scots and the Archbishop of Canterbury, but farther back than either, and separated from the rest of the house by their seats, stands a man in a gown, but uncovered, with a roll of parchment in his hand. In a similar situation, between prince Llewellyn and the Archbishop of York, appear two persons who, although covered, do not seem to be members of the House, because they are divided from it by the covered bench, on one end of which that prince sits. The floor is chequered, and the seats of the barons, bishops and abbots are plain forms; but that extending across the upper part of the House, and on which the princes and archbishops are seated, is a sort of sofa covered with embroidered cloth, and in that part also the floor is covered with a sort of figured cloth or carpet. In the engraving, it looks as if the centre of the sofa were padded up to support, nearly on a level with the verge of its back, the king's throne, which is a neat canopied chair with piers, surmounted by globes, on each side the seat. The king of Scotland and prince of Wales have crowns but no sceptres; but Edward has a very formidable sceptre, and the archbishops have their croziers. All the faces are without beards or mustachios, and the execution and perspective are such as might be expected in that age.

The coronation of Edward took place on the 19th of August, 1274. Alexander, with his queen, and many of his nobility, assisted at the ceremony. From the delineation here given, it also appears that Alexander and Llewellyn sat in the House of Peers in a parliament held, as usual, after the inauguration.

It does not seem difficult to determine the rank of the different persons represented in this engraving, with the exceptions already indicated. Pinkerton himself thinks that the uncovered person in the background near King Alexander bears the deed of homage for the lands held by that monarch in England; and that the two covered persons standing behind, near the Archbishop of York, are the pope's ambassadors. The seven persons on the cross bench are, with the exception of the right-hand man, dressed like the barons; and, if we concur with Smith in supposing them the knights of the shires, the four uncovered persons seated before them, on one of the woolstacks which form a quadrangle in the middle of the house, may not im-

probably be the delegates of the City of London, which appears to have possessed the privilege of sending representatives to the parliament at a period somewhat earlier than any other town in the kingdom.

BARROWS.

THIS name is given to the artificial hills which were in ancient times very generally constructed to commemorate the mighty dead. Such hills are usually formed of earth, but sometimes of heaped stones. In the latter form they are almost exclusively confined to Scotland, and are there called cairns. Barrows are found in almost every country, from America to the steppes of Tartary, and probably exhibit the earliest and assuredly the grandest species of honorary burial, a humble relic of which we still retain in the mounds of earth over the graves in our churchyards. Assuming that the barrow indicates, in the matter of sepulture, the first step of man from the merely savage state; it does not seem to have been forsaken for monuments of greater art and delicacy until such further advances in civilization had been made as might be indicated to a careful inquirer by the alteration in the form or structure of the tumulus itself, and still more by the contents which might be disinterred; for it was in all, except perhaps the very earliest instances, customary to bury with the dead their weapons, their ornaments, and other articles of value. In the barrows of the earliest period we might expect to find no more than the bones of the unconfined and unurned barbarian with his arrow heads of flint; while those of a later period would furnish stone and earthen coffins, urns of metal and earthenware, spears, swords, shields, bracelets, beads, mirrors, combs, and even coins and cloths,—articles which are actually found in some tumuli; and most of them in those of this country. In general, however, a person pursuing such investigations would be most surprised at the very great resemblance which the barrows of remote countries bear to each other, not only in their structure but in their contents. In exploring the tumuli of distant lands, and comparing our discoveries with those made by other persons in other lands, the writer has been frequently tempted to fancy that they were all, in effect, the work of the same people.

We have felt very strongly the imposing effect produced by the view of vast, open, and forsaken Mohammedan cemeteries at a distance from the existing habitations of men; but even this is nothing to the impression made on the traveller by the cemeteries of the early world, when he stands in Scythian or Tartarian steppes, and sees these artificial hills stretching to a vast distance around. It would be necessary to see them to comprehend the immense labour which must have been employed on their construction. They vary greatly both in height and circumference; but, generally, when one of particularly elevated appearance occurs, there are seen around it other barrows of smaller dimensions. It is reasonably supposed, that while the larger tumuli covered the remains of princes and heroes, the smaller contained the bodies of inferior dignitaries. The common people could not generally have been so expensively interred as even in the smaller tumuli. As this kind of barrow-burial is not in those countries open to notice as an existing usage, it is a particular advantage to be able to recur to Herodotus, who speaks with a special reference to the people whose cemeteries we at present consider, and whose account is confirmed by the discoveries of such travellers as have been able to acquaint themselves with the contents of these burial-hills. He says that when a king or chief died the people assembled in great numbers to celebrate his obsequies. The body was taken to the district particularly appropriated to interments, where a

large quadrangular excavation was made in the earth (in its dimensions more like a hall of banquet than a grave), and within it the body of the deceased prince was placed on a sort of bier. Daggers were laid at various distances around him, and the whole covered with pieces of wood and branches of the willow-tree. In another part of the same immense grave were deposited the remains of one of the late sovereign's concubines, who had been previously strangled; also his favourite servant, his baker, cook, housekeeper, and even his horses,—all followed him to the grave and were laid in the same tomb, together with his most valuable property, and, above all, a sufficient number of gold goblets. This last is a refinement we should hardly have expected to find in the Scythians. Our Saxon ancestors were content to think that they should drink beer in the halls of Odin from the skulls of their enemies. No doubt all this arose from the widely-diffused persuasion among savages and barbarians that the deceased will enjoy in another world the services of the persons and animals, and the use of the weapons and utensils deposited in his grave. After this the hollow was soon filled and surmounted with earth, every person being anxious to do his part in raising the hill by which his departed lord was honoured.

After this statement concerning some of the more ancient barrows, it may not be amiss to notice some discoveries of sepulchres of the same class in countries explored at a comparatively recent date, and which will serve to show the extent to which this mode of burial, perhaps beyond any other, prevailed previously, and for some time subsequently, to a knowledge of architecture. Barrows have been found in New Caledonia, and in the country north of the Hottentots. Two very curious tombs on the barrow-principle were discovered by Mr. Oxley in 1817-1818, in the interior of New South Wales. The principal of the two showed considerable art. The form of the whole was semi-circular: three rows of seats formed one-half, and the grave, with an outer row of seats, the other. These seats or benches constituted segments of circles of from forty to fifty feet, and were raised by the soil being trenched up between them. The grave itself was an oblong cone, five feet high by nine in length. This barrow was supported by a sort of wooden arch: the body was wrapped up in a great number of opossum skins, covered with dry grass and leaves, and lay about four feet below the surface.

Barrows, and other similar tumuli, are also found in America, and are thus mentioned in the 'Encyclopedia Americana':—"In the valley of the Mississippi, tumuli, or mounds of earth, are discovered in great numbers, of the origin and uses of which we are yet ignorant. Similar constructions also occur in Mexico. The barrows of the Mississippi valley have been found to contain bones, and are said to be composed of earth different from that of the surrounding country. They exhibit no trace of tools, and are, in fact, merely regular piles of earth, without brick or stone. They are commonly situated in rich plains or prairies. There is one near Wheeling 70 feet in height, 30 or 40 rods in circumference at the base, and 180 feet at the top. There is a numerous group at the Cahokia, stated at about 200 in all, the largest of which is a parallelogram, about 90 feet high, and 800 yards in circuit. It has been asserted that the skulls found in these mounds resemble those of Peru."

These American tumuli are not, like those we have been hitherto considering, the monuments of individuals, but appear to consist of thick strata of bones, promiscuously strewed with alternate layers of earth. The difficulty alluded to in the extract seems to be to determine on what occasion they were constructed. Some consider that they were raised on the scene of memorable

battles, and contain the remains of those slain on the occasion—others suppose them to have originated in the custom of collecting, at certain periods, the bones of the dead wherever deposited—and many regard them as the cemeteries of formerly-existing towns. The first conclusion seems strengthened by the fact that the tumuli in Ohio afford skulls fractured by the battle-axe, and bones with the stone heads of arrows sticking in them; the second by the dispersed manner in which the bones are found; and the third by the fact that the sites of towns are indicated by walls and ditches having been found in the vicinity of such barrows. Some curious facts on this subject, are given in a late Number of Silliman's 'American Journal of Science.'

THE OTTER.

THE Romans, on their arrival in this island, found the bear, the wolf, the beaver, the wild hog, and wild cattle, besides the stag, the roebuck, the fox, the otter, and many more, all objects of chase, in which the Britons spent a great portion of their time. Of these animals, the bear, the wolf, the wild hog, and the beaver, have long been extirpated. Wild cattle, the descendants of the original native stock, now only exist in one or two parks; so that they may be considered as on the eve of being extinct. The roebuck is very scarce, and the stag (except where preserved in inclosed parks) as much so, both lingering only in the wild mountain districts of the North. The fox, were it not that the breed is preserved for the gratification of the privileged few to whom its chase affords amusement, would soon disappear.

The otter is one of the most interesting of the indigenous beasts of prey which have a place among the British Fauna of the present day. Voracious, subtle, active, and bold, it is notorious for its devastations among the fish in our rivers and lakes, which are not protected from this foe either by the element in which they live, or by the rapidity of their motions in it. Like them, the otter is at home in the water, swimming at any depth with the utmost velocity and address. It follows up its prey; silently and with indomitable perseverance, through every turn and maze, ever keeping the victim in sight, which, after a chase of greater or shorter duration, is exhausted, captured, and killed. Nor is the otter less remarkable for the graceful elegance than for the vigour of its movements in the water. Whoever has witnessed the feeding of those kept in the Gardens of the Zoological Society cannot fail to have remarked the fine sweep of the body as the animal plunges into the water,—its undulating movements beneath the surface while exploring the prey—the abrupt and arrow-like velocity of the pursuit—and the easy turn to the surface with the captured booty, which is taken to its den and devoured. The animal then returns to the water and takes another fish, which is dealt with in the same manner; and this process is repeated until no more fish are left. Sometimes, however, instead of treating them thus separately, the otter contrives to bring up several at a time, managing not only to seize them with great dexterity, but to carry them hanging from its mouth. Eight or ten fish serve for a single meal; but it is well-known that in a state of freedom an otter slaughters a much larger number of fish than it devours; and thus some idea may be formed of the annual havoc occasioned by a pair of otters in a river or preserve for fish, in order to supply the wants of themselves and their young ones.

It seems a matter of some surprise that an animal far from being destitute of docility, and possessing the instinctive qualifications alluded to, should not be known in a reclaimed condition, so as to be useful to man or subservient to his pleasure. There are, indeed,

several isolated instances on record of its having been domesticated, and so trained as to exert its powers on behalf of its master. Bewick relates that Mr. James Campbell possessed a young one, which had been trained by him with such success to catch fish that, in a single day, it would sometimes take ten salmon. When wearied with its hunt, it would decline further exertion and receive its reward in an ample repast on the fish it had taken, and fell almost instantaneously asleep, being generally conveyed home in that state. It would fish in the sea as well as in rivers. The late Bishop Heber noticed in India, on one occasion, a number of otters tethered by long strings to bamboo stakes on the water's edge, and was informed that it was customary to keep them tame in consequence of their utility in driving the shoals of fish into the nets, as well as of bringing out the larger fish with their teeth. Those which Bishop Heber saw were almost as tame as dogs, and were enjoying themselves, some in swimming about, as far as their strings would admit, —others in rolling and basking on the sunny bank.

The otter is admirably adapted to its aquatic habits. Its body is elongated and flexible, and terminated by a long, robust, but tapering and somewhat compressed tail, which serves as a sort of rudder in the performance of the evolutions of the animal in the water;—the limbs are very short, but remarkably muscular and powerful; and the feet, which consist of five toes each, are webbed so as to serve as paddles or oars. The eyes are large, the ears short, and the lips are furnished with strong mustachios. The covering consists of two kinds of fur,—an under-vest of close, short, water-proof wool, and an outer-vest of long, coarse, glossy hairs. Shy and reclusive, the otter is nocturnal in its habits, lurking by day in its burrow, which opens near the water's

edge, concealed among intertangled herbage, and is generally carried to a great depth in the bank. Here, on a bed of leaves and grass, the female brings forth and rears her young, attending to their wants with great assiduity, and exhibiting for them a more than ordinary share of maternal solicitude. She produces four or five young at a birth in May or June.

Among the sports of our forefathers, otter-hunting was not one of the least esteemed; and a breed of rough-haired powerful dogs was employed in aiding the exertions of the hunters. As the water is the congenial element of the otter, a single dog has there little chance against so active and resolute an antagonist, nor indeed could any number unassisted bring him to bay. When forced from his retreat, it is in the water, therefore, that the animal naturally takes refuge; here a host of dogs assailing him would oblige him to swim beneath the surface as long as he could hold his breath, and on his rising to breathe he would be met by a shower of spears, launched at him by the hunters on the bank. Thus attacked on every side, still his activity and resolution would, under ordinary circumstances, enable him to baffle for a long time the most vigilant pursuit of his enemies, and not unfrequently to escape. But at length the poor animal perished, as too often happened, wounded and oppressed by numbers, yet fighting to the last. In our day otter-hunting is less commonly practised, as the animal is more scarce as well as more limited in its localities; it is not, however, by any means forgotten. But traps, nooses, &c., are now usually employed in order to rid the pond or river of so destructive a guest.

The following cut is a representation of an otter-hunt in Scotland, of which we shall give a description in a future Number.



[Otter-Hunt in Scotland.]

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TWELFTH NIGHT.



[Le Roi Boit, from Jordaens.]

THE above wood-cut is copied from the engraving in the 'Musée Français,' after Jordaens' celebrated picture of the Flemish celebration of Twelfth Night, known by the appellation of *Le Roi Boit*—"The king drinks." The picture is considered one of the principal works of that distinguished artist, with whom the subject seems to have been a favourite one, as he painted it several times. The several pictures present important differences; but they are all ingenious, comic, natural, and above all, remarkable for the truth and magnificence of the colouring. The picture before us is in the Louvre at Paris. It was originally in the possession of a mercantile family at Antwerp; but in the year 1783 it was purchased for Louis XVI. The height of the picture is four feet nine inches, and its breadth six feet two inches. The spirit of the painting will be better understood by the following account of the custom to which it refers, the materials of which are chiefly derived from Brand's 'Popular Antiquities' (Ellis's Edition), Strutt's 'Sports and Pastimes,' Brady's 'Clavis Calendaria,' and the letter-press illustration of the engraving in the 'Musée Français.' The election of a mock-monarch to preside over the sports and pastimes of particular seasons is a very old practice which was formerly common in this country as well as on the Continent; and of which there are still some existing traces. Hence we read of the kings of Christmas, of the cockneys, and of the bean, the may-queen, the lords and abbots of misrule, corresponding to the

abbot of unreason' in Scotland—not to speak of the kings, popes, and bishops of fools on the Continent. Selden in his 'Table Talk' is of opinion that these whimsical assumptions of dignity are derived from the ancient Saturnalia, or feasts of Saturn, when the masters waited upon their servants, who were honoured with mock titles, and permitted to assume the state and deportment of their lords. It is indeed remarkable that our twelfth day nearly coincides in the time of the year with the Saturnalia; and Fosbrooke even finds that the king of the Saturnalia was elected, like the king of twelfth night, by a bean. These fooleries were so exceedingly popular, that they continued to be practised long after the establishment of Christianity, in defiance of the threatenings and remonstrances of the clergy, who at last yielded to the stream of popular prejudice, and permitted the continuance of the practice; but so altered the primitive object of the institution, that the orgies which had marked the festival of a heathen deity became changed to Christian commemorations.

Of these various monarchs, who much resembled each other in their powers and functions, the one represented in our engraving seems to be the 'King of the Bean,' whose reign commenced upon the vigil of the Epiphany or upon the day (Twelfth Day) itself. We are informed by Bourne that "it was a common Christmas gambol in both our universities, and continued," at the commencement of the last

century, "to be usual in other places to give the name of king or queen to that person whose extraordinary good luck it was to hit upon that part of a divided cake which was honoured above the others by having a bean in it." Strutt, however, is disposed to doubt that in early times (for the title is by no means of recent date) the election of the monarch depended entirely upon decision of fortune; the words of an old Romish calendar seem to countenance a contrary opinion. They are to the following effect, as cited by Mr. Brand in a note to the above passage of Bourne:—"On the 5th of January, the vigil of the Epiphany, the kings of the bean are created; and on the sixth the feast of the kings shall be held, and also of the queen, and let the banqueting be continued for many days." At court, in the reign of Edward III., the title was conferred upon one of the king's minstrels, as we find by an entry in a *compotus* so dated, which states that sixty shillings were given by the king, upon the day of the Epiphany, to Regan the trumpeter, and his associates, the court minstrels, in the name of the king of the bean.

As all the various customs of different countries on this day concur in the common object of commemorating the visit of the three wise men, or kings, to the birth-place of Christ, a king is in some way or other always a conspicuous personage in the entertainments which take place. In France, previously to the Revolution, this mode of celebrating Twelfth Day prevailed as well at court as among the people in general. At the former, one of the nobles was chosen king, and at the entertainment which followed the Twelfth Day monarch was attended by the king and the courtiers. It does not seem that this custom was revived at the restoration of the Bourbons, but instead of it the royal family washed the feet of some poor people, and bestowed alms upon them. Among the people, the person who obtained the slice of cake was king, and reigned throughout the evening. The first act of the new monarch was to dub some one of the company the fool of the evening, whose business it was to keep "the table in a roar" by his verbal and practical jokes. No one drank until the king set the example, for which every one was on the watch, and when he placed the cup to his lips, the place was in an uproar with huzzas, laughter, and shouts of "The king drinks!" It was doubtless this form of the institution, which prevailed equally in France, Belgium, and Germany, that Jordaens had particularly in view. Time has somewhat altered the form of the institution everywhere. In France, the more respectable families are content with giving some of the cake to the domestics; and, in general, there is no election of a sovereign, but the mistress of the house presides.

It seems to have been customary to expect the king to bear the expenses of the entertainment. Sir Thomas Urquhart, of Cromarty, in a curious political tract, published soon after the battle of Worcester in 1651, says, "Verily, I think they make use of kings as the French on the Epiphany Day use their Roy de la Fehve, or King of the Bean; whom, after they have honoured with drinking of his health, and shouting aloud, 'Le Roy boit! Le Roy boit!' they make pay for all the reckoning, not leaving him sometimes one penny, rather than that the exorbitance of their debosh should not be satisfied to the full." So also Misson in his 'Travels in England,' informs us in a note, that "on Twelfth Day they divide the cake, *alias* choose king and queen, and the king treats the rest of the company."

Brand, in his 'Popular Antiquities,' quotes in one of his notes a passage from the work of Aubanus, entitled 'Mores, Leges, et Ritus omnium Gentium,' 1620, which seems to give a good general account of the mode of election. He says that each family made a cake of flour, honey, ginger, and pepper; the maker, in

the kneading, thrust in at random a small coin. When it was baked it was divided into as many parts as there were persons in the family. It was distributed and each had his share. Portions of it were also assigned to Christ, the Virgin, and the three Magi, which were given away in alms. Whoever finds the piece of coin in his share is saluted by all as king, and being placed on a seat or throne is thrice lifted aloft with joyful acclamations. He holds a piece of chalk in his right hand, and each time he is lifted up makes a cross on the ceiling. These crosses were thought to prevent many evils, and are much revered. Brand says he did not know that the custom was, when he wrote, practised anywhere in the north of England, though still very prevalent in the south, where after tea a cake is produced, and two bowls, containing the fortunate chances for the different sexes. The host fills up the tickets, and the whole company, except the king and queen, are to be ministers of state, maids of honour, and ladies of the bed-chamber. Often the host and hostess, more by design perhaps than accident, become king and queen. According to Twelfth Day law, each party is to support his character until midnight.

In this country, it appears, from the following verses by Herrick, that the twelfth cake was formerly made full of plums, and with a bean and a pea; whoever got the former was to be king, and whoever found the latter became queen.

TWELFTH NIGHT, OR KING AND QUEEN.

"Now, now the mirth comes
With the cake full of plums,
Where Beane's the King of the sport here;
Be also, we must know
The Pea also
Must revell, as Queene, in the Court here.
"Begin then to chuse
(This night as ye use)
Who shall, for the present delight here
Be a King by the lot,
And who shall not
Be Twelfe-day Queene for the night here.
"Which known, let us make
Joy-sups with the cake;
And let not a man then be seen here,
Who unurg'd will not drinke
To the base from the brink,
A health to the King and Queene here.
"Next crowne the bowle full
With gentle lambs' wool;
Adde sugar, nutmeg, and ginger,
With store of ale too;
And thus ye must doo
To make the Wassaile a swinger.
"Give then to the King
And Queene wassailing;
And though with ale ye be whet here,
Yet part ye from hence
As free from offence
As when ye innocent met here."

Among the relics of this old custom the practice of drawing for king and queen on this day, when the twelfth-cake, which forms so important a part of the entertainment, is divided, may be numbered. "Some authors derive it from a custom observed by the Roman children of drawing lots with beans at the end of the Saturnalia to see who would be king. Others consider it allusive to the offerings made by the wise men. The classical origin appears to have been favoured in our universities, where the custom of drawing king and queen was formerly common, and the lots were decided by beans found in the divided cake. The old calendars stated, that on the vigil of this day kings were elected by beans, and the day was denominated the Festival of Kings. Although the honours of king and queen, with the other characters introduced to promote mirth and jollity, are now determined by drawing slips of paper, the practice of drawing by beans is still retained in some parts of England; and whatever may have

been the origin of this custom, it was probably first observed by the heathens, and, like many others, adopted by the Christians. England is not singular in the festive observance of this day, which has prevailed throughout Europe, with the variations naturally arising from national propensities or prejudices*."

In the picture before us we seem to recognize the mistress of the family in the richly-attired young woman seated at the middle of the table; the young female near her is supposed to be a servant, and all the other persons represented are probably of the same rank in life, with the exception of the child. The heads of the two young females, the figure of the king, on which the light falls from behind, that of the old man by his side, and that of the young man who fills the cup, are all admirable in their way. The young man at the bottom of the table is evidently raising the shout, "The king drinks!"

Our engraving seems to come in somewhat appropriately at this season, which is more rife with old observances than any other of the year. The connexion which any of them bear to the particular occasion which calls them forth it is difficult to discover, and some of them are singularly at variance with the feelings which the occasion might be supposed to produce. In themselves, however, hardly any are positively evil, and many of them incline to social happiness and kind feeling. It is good that there should be a season in which every man feels bound to put on all the kindness of his nature, and in which every head of a family likes to see all its scattered members gathering around him. So far we are willing that its observances should endure for ever; but we confess that we look without much regret upon the gradual decline, particularly in towns, of several of the old usages which prevailed at this season; conceiving, as we do, that the disuse is a necessary consequence of a higher tone of mind, which the people are acquiring, and which has already opened to them purer and more varied sources of enjoyment than were formerly within their reach.

Jacob Jordaens, whose picture has given occasion to these remarks, was a distinguished painter of the Flemish school, born at Antwerp in the year 1591. He was the pupil of Adam Van Oort, whose daughter he married at a very early period of life; but he is considered to have been much indebted to the instructions of Rubens, though it does not appear that he was ever regularly admitted to the school of that great painter, whose principles were more fully worked out by him than by any of the pupils except Vandyke. Rubens is said to have been jealous of him; but this is always said of the elder of any two contemporary painters. However, it is certain that Jordaens ranked very high in his profession. He was in constant employment throughout his long life; and his great industry, joined to the facility and expedition with which he worked, enabled him to produce a vast number of pictures, and to acquire considerable wealth. His compositions are very tasteful and effective; his style is brilliant and harmonious, and his designs are eminently characterised by accuracy and truth. He was particularly skilful in giving relief and rotundity to his figures; and from the character of their execution, he is presumed to have studied his subjects by candle-light. His principal defect is said by some to be occasional grossness of subject and form, and a preference of images of low and common life; but the extent to which this can be considered at all as a defect admits of dispute. He was never in Italy, but he is said to have omitted no opportunity of studying the productions of the Venetian school, particularly the works of Titian, for which he had a strong preference. It is stated, indeed, that Jordaens never left his native city, where he died in 1678, at the age of 84 years.

* Brady's Clavis Calendaria.

ON HYBERNATION.

At the present season, when man has recourse to artificial means of protection from cold, it is natural for us to inquire into the condition of the inferior animals, and to ask how are they defended and what is their refuge? Some are provided with an additional coat of thick fur, which is lost as the spring returns;—some have a dense padding of soft down, and are covered (as is the ptarmigan) with a full warm vestment to the very ends of the toes;—some, too tender to endure the severity of our northern winter, or unable to procure a due supply of food, wing their way to the sunny regions of the south, and find in intertropical climates a temporary asylum. But there are others which have no means of leaving winter behind them, and to which no additional clothing is afforded in order to protect them from the cold: yet of that cold are they sensitive in the highest degree. What then is their resource? It is in a peculiar state of lethargy, which comes on as the cold increases, and continues till the opening of spring and sunshine. They are thus said to hibernate;—and hibernation is one of the most mysterious and beautiful of the conservative operations of nature which the animal economy exhibits. It has been investigated by many physiologists, and lately by Dr. Marshall Hall, whose experiments have thrown much light upon its real nature. It is during the depth of winter we discover a dormouse, hedgehog, or bat, it will appear as if in a profound sleep, and in that position which it usually assumes during sleep. But the trance is deeper, breathing has nearly ceased, and the bodily temperature of the animal is reduced to the temperature of the atmosphere, the internal parts being perhaps three degrees higher. The almost cessation of breathing, which is so remarkable a feature during hibernation, leads to the inference that the vital property of muscular fibres, termed *irritability*, is at this time greatly augmented; an inference abundantly proved by experiments. Hence does Dr. M. Hall state the following results of his own investigations:—“1. that the irritability of the heart is augmented in continued lethargy in an extraordinary degree; 2. that the irritability of the left side of the heart is then little, if at all, less irritable than the right;—that it is in fact *con-tractile*, that in this condition of the animal system the action of the heart continues for a considerable period independently of the brain and spinal marrow.” By irritability it may be as well to observe is meant that vital power of contractile or expansive movements which muscular fibres exhibit in consequence of the application of certain stimuli, which movements are independent of volition.

The close connexion between the functions of respiration and the circulation of the blood is well known. If, under ordinary circumstances, an animal ceases to breathe, the circulation through the heart is impeded, and death ensues. Now in the hibernating animal respiration is nearly if not quite suspended; and “had not the irritability of this organ become proportionately augmented, the actions of life must have ceased.” As it is, however, the circulation continues uninterruptedly but slowly, the blood of the arteries being in a venous or unoxxygenated condition. In the bat, the pulsation of the heart was found by Dr. M. Hall to be about twenty-eight times in the minute, and regular.

With respect to sensibility and the power of muscular mobility, they are unimpaired; and those “physiologists who have asserted the contrary have mistaken the phenomena of *torpor from cold* for those of *true hibernation*.” *Torpor from cold* is the beginning of death;—*hibernation* a preservative from death. Touch the spines of a hedgehog during hibernation, and it rouses to draw a deep inspiration—touch the wing of the bat, and it does the same: the hedgehog may thus be

roused, and the bat incited to fly, "although exhaustion and death may subsequently result from the experiment."

Torpor, the immediate effect of excessive cold, may become fatal even to an hibernating animal; and indeed true hibernation is not induced by *intense* severity of, but by *moderately* low temperature. "All hibernating animals avoid exposure to *extreme* cold. They seek some secure retreat, make themselves nests or burrows, or congregate in clusters; and if the season prove unusually severe, or if their retreat be not well chosen, and they be exposed in consequence to excessive cold, many become benumbed, stiffen, and die."—"When we read of insensibility, of a stiffened state of the muscles, and of a cessation of the circulation, as obtaining in hibernation, we may be certain that a state of *torpor* has been mistaken for that condition. The actually hibernating animal, exposed to continued severe cold, is, as M. Snissy correctly observes, just roused from the state of ease and preservation into a *painful activity*, and then plunged into a *fatal torpor*." If cold can destroy an hibernating animal, so can the excitement of motion and sudden warmth, which rouses it to *sudden reviviscence*. For the great irritability of the heart, which renders it susceptible to the stimulus of cold unoxygenated blood in this state of lethargy, would be incompatible with the continuance of life on the oxygenation of the blood by quick and vigorous respiration. Respiration, therefore, suddenly restored, and permanently excited, is as destructive as the *stopping of respiration* under ordinary circumstances.

If the phenomena of *reviviscence* in an animal hibernating in its natural dormitory be observed, it will be found that the return of respiration is gradual, and that the acceleration of the blood through the heart, together with the increase of the temperature of the body, are in an equal ratio. Natural and healthy reviviscence is no doubt, in part, to be attributed to the gradual change periodically occurring in the atmospheric temperature, but is most probably also connected with causes in the economy of the animal not yet fully understood, operating periodically on the internal organs.

Great Heads.—A description of an extraordinarily large skull has been published by Dr. Louis Valentin. This skull is preserved in the Cabinet of Natural History at Marseilles; it belonged to a man named Borghini, who was born in that town and died there in 1616. He lived to be fifty years old: he was only four feet high; his head was about a foot in length, and its lateral circumference was three feet. The skull is open to the size of a crown-piece at the spot where the sagittal suture meets the coronal, and the lambdoidal suture begins. Although this man, says Dr. Valentin, had plenty of brains, he had very little sense: so that it became a proverb, which is still in existence at Marseilles:—*a pas mai de sen que Borghini*—you have no more sense than Borghini. As he advanced in life, being no longer able to keep his head up, he was obliged to have a cushion on each shoulder to support it. Dr. Valentin, to whom we are indebted for the preceding details, gives us also the following account of a man whom he knew at Marseilles, and who died there, in 1807, at the age of seventy-one. Philip Soomet had a very large head; his forehead was broad, and projected extremely. He had not been in bed for thirty years;—he spent the night in a reading-chair;—he only ate once in twenty-four or thirty hours;—he never used a fire or hot water. His passion was to compile from books, and to criticise contemporary writers, but only in conversation. The voluminous MSS. which he left behind him consisted merely of extracts. He was a diligent frequenter of the public library, and he affected never to look at the skull of Borghini, though he was obliged to pass it every time he came in or went out. He ordered thirty or forty or even sixty volumes to be brought him at once. He frequently fell asleep with a pen in his hand, and it was necessary to awake him when the library doors were closed.

ON THE SYSTEM OF CONTRACTS PURSUED IN THE MINES OF CORNWALL.

Of all the varied and complicated relations incident to a highly-civilized state of society, there are perhaps none which it is so difficult to adjust in a fair and satisfactory manner as those which exist between *masters* and *men*,—between that class whom education, talent, and the possession of capital, places in a situation to direct and to employ, and that far more numerous one whose skill or labour can only be rendered available through the medium of the former.

The object of this paper is merely to describe and render more generally known a system under which these difficult relations are made to *adjust themselves*, as regards one important branch of national industry,—we allude to the plan long pursued in the mines of Cornwall, and of late years successfully introduced from thence into other parts of the kingdom.

With the exception of the small number of individuals employed as superintendents, clerks, &c., and who of course are paid by fixed salaries, the whole labour of the Cornish mines is performed by *contracts made at stated intervals*, generally once in every two months. These contracts are made publicly in the open air, and the proceeding is attended by all the miners in the neighbourhood who may be desirous of undertaking any of the work which is to be performed. The manner in which the business is carried on is very similar to a common auction, the different parcels of work being the *article* bid for, and the men the *purchasers*, or more properly (though technically) speaking the "*takers*," of these allotments, the *price* at which they are taken being entirely regulated by the competition among them. There is however this peculiarity, that the work is always put up at a price much higher than ought fairly to be paid for it, and this price is gradually reduced to a proper standard by the competition among the men. The whole proceeding is guided by certain forms and regulations binding on all parties, which are read aloud at the commencement, and the contracts remain in force for the ensuing two months, when they are again renewed in the same manner; due allowances being made for all the varying circumstances which may have affected the works during the preceding interval.

This system has been pursued in Cornwall from time immemorial, and so admirably does it reconcile all conflicting interests, that *strikes* among the miners are there unknown, although so prevalent among labourers of a similar class in the north of England: we allude to the coal miners, with whom a much less perfect system of payment prevails, and whose combinations and strikes, together with the outrage and violence frequently attending them, must be familiar to most of our readers.

The mode of carrying this system into effect is in itself so interesting, that we shall now proceed to describe it more minutely, together with such other circumstances as may be necessary to render the whole intelligible.

The work done in the mines of Cornwall is principally of three kinds, technically termed "*tutwork*," "*tribute*," and "*dressing*."

Tutwork consists in making all those excavations which have for their *ultimate* object the discovery or extraction of ore, but which are not executed for the sole purpose of obtaining it, being often made in the barren rock or in the unproductive parts of the vein. Of this kind are *shafts*, *cross-cuts*, *levels*, *winzes*, &c. This work is paid for by the *fathom in depth or length*, or in some cases by the *cubic fathom*, and when the substance extracted, or a portion of it, is of any value, the miner receives in addition a certain *proportion of that value*, which induces him to keep the ore as clear as possible from the rock or rubbish which is broken

with it, and would otherwise deteriorate its quality. The price usually paid for tutwork varies from about 5*l.* or 6*l.* per fathom, to 30*l.* or 40*l.* depending on the hardness of the ground, the nature of the work to be performed, and various other circumstances. In excessively hard ground as much as 80*l.*, or even 100*l.* per fathom, has occasionally been given.

Tribute is in some measure the reverse of tutwork, since it includes all those excavations from which ore is actually obtained, and which are made merely for the purpose of procuring it. As, however, the quality of the ores is extremely variable, this kind of labour is not paid for by the *quantity* of work done, but by a certain proportional part of the *actual value of the ore, when brought to the surface, and reduced to a salvable state*, or one in which it is fit for the operations of the smelter, to whom it is generally sold on the mine, the business of the miner and smelter being usually quite distinct, and carried on by entirely different parties. The mode of estimating the price of tribute is by a certain sum for every *twenty shillings worth of ore raised from the mine and rendered saleable*. Like tutwork this amount is extremely variable. Where the ore is very rich and abundant, from sixpence to a shilling in the pound is generally given; but when, on the contrary, it is poor and in small quantity, the tribute sometimes amounts to fifteen or sixteen shillings in the pound. In executing either description of work, from two to four men usually work together; but as the work of a mine proceeds day and night without interruption, it is necessary that the party who take the work should consist of three times the number actually employed at a time, so that different sets of men may relieve each other in succession, each party working but eight hours in the twenty four. By a singular misnomer, however, such a party of men, although usually varying in number from six to twelve, are always called a "*pair*," perhaps because only two often work together. In forming the contract there is always one man of such a party, who having agreed with the rest as to the terms, takes the lead in making the bargain. This man is considered as the responsible person, and called the "*taker*," by which means the proceeding is greatly simplified.

Dressing consists of those processes which the ore undergoes when brought to the surface, in order to reduce it to a state fit for smelting, and is chiefly performed under the same contract as tribute, of which it may be said to form a part, although carried on upon the surface, and by a different set of persons. The poorer parts of the ores, called the "*hulvans*," which would not pay for dressing under the original contract, are again "*set*" to other persons at a higher price.

Having now given an outline of the system of the different kinds of work, and of the mode of payment, we may proceed to what is termed the "*selling*," or "*survey*," which is the actual process by which the preceding arrangements are carried into effect.

A few days previous to the *survey*, as the auction is termed, the captains, or superintendents of the mine, examine every part of it, and determine what operation shall be carried on for the next period of two months. Each of these works is distinctly specified and registered in a book kept for the purpose, and opposite each is marked the rate which in their opinion will be a fair remuneration to the men for performing it. The captains being always selected from the most intelligent working miners, they are of course well qualified to form a correct judgment on this head, as the labour upon which they set a value is of a kind which they themselves have mostly been employed for years in performing.

As all the contracts for the preceding two months expire on the "*selling day*," it is of course a holiday

to those employed in the mine; and it is a pleasing sight to see the population, usually scattered in isolated groups throughout its subterranean recesses, all assembled and enjoying for a time the light of heaven.

The auction, or "*survey*," is always held in the open air, and before the counting-house or office, where all the business of the mine is transacted, and which is usually situated in a central part of it. In the front of this building there is always a small covered platform, corresponding in height with the first story. About noon the captains of the mine take their station on this platform, and commence the business of the day.

By this time a group of men, amounting, in large concerns, to three or four hundred or more, will have collected around the spot. This group will consist principally of those who usually work in the mine, and partly of miners from the neighbouring country, who may be desirous of obtaining employment there.

One of the captains commences by reading aloud a printed form of rules, which are generally the same in all mines, and prescribe certain conditions upon which the work is to be taken, fines for neglect or idleness, and other necessary regulations.

The name and description of the first piece of work on the list is then read aloud by the captain; this is immediately bid for at a certain price by some person in the crowd below, who with his party may be desirous of undertaking it. The price named is, however, generally much higher than there is any chance of actually obtaining, and some other person will immediately bid perhaps five or ten shillings lower. While the price continues high, the competition goes on briskly; but when it approaches what is known to be a fair remuneration, the miners become more cautious, the competition slackens, and at last ceases altogether.

The captain then throws a pebble in the air, and declares the last bidder to be the "*taker*" of the work at the price last named. The man then comes forward and gives his name and that of the companions who take the work with him, all of which are then registered in the "*selling book*" opposite the work taken.

It sometimes happens, however, that the men may have agreed not to bid less than a certain sum for the work, and this sum will of course be higher than what the captains have valued it at. Should the captains still be of opinion that the price they have fixed is a fair one, the work is not considered in this case as actually taken by the last bidder, who has merely the first option of taking it at the captain's price, which they immediately call out and offer him. Should he not take it at this price (which, however, knowing it to be a fair one, is usually the case), the other bidders have in succession the same option, and it will generally be taken by one of them. Should, however, the combination be general, this piece of work, and any others similarly circumstanced, are passed over and "*set*" again, at some future occasion, when it will generally be taken at the price originally offered by the captains, or should that really be too low, they are under the necessity of allowing a higher one, as the work will otherwise remain undone.

In this manner the business proceeds, till all the different pieces of work, or *bargains* have been taken by the men, and often in the course of a couple of hours work is thus disposed of to the amount of perhaps several thousand pounds, and which will furnish direct employment to many hundred persons for the next two months. All waste of time and trivial disputes are thus avoided, and what is of far more consequence, the price of labour is by this system continually *adjusting itself* to that standard which is determined by an infinite variety of complicated and fluctuating circumstances, and which no combination, either of masters or men, can permanently alter.

It requires but little examination to perceive that, by the plan we have described, the interests of the men and of their employers is most effectually combined. Tutwork, indeed, differs but little from the *piece-work*, so often employed in various manufactures; but by tribute, which is a higher kind of labour, and requires much foresight and calculation, the wages of the men and the profits of their employers are so regulated, as necessarily to keep pace with each other, for it is evidently the interest of the men to send to the surface and render saleable as large a quantity as possible of all ores that will pay for extraction, for the least possible cost; and this is also precisely the interest of their employers, who from this circumstance are, in great measure, relieved from the expense and trouble of minutely examining into all the complicated details of the concern.

As, however, there are means by which fraud might still be carried on to some extent, this is, in most cases, effectually prevented by the vigilance of the captains, who, from having themselves been working miners, are well aware of the nature of any deceit which might be attempted.

Another great advantage of the tribute system depends in great measure on the peculiar nature of the employment. Mineral veins are always extremely inconstant and variable, both as to the quantity and value of the ores which they produce, but from certain indications the experienced miner can often foresee changes of this kind before they actually take place. Intelligent and enterprising tributers will often therefore undertake to work parts of the mine (of course at a high rate of tribute) where the ores are poor and would otherwise be neglected; because, from long observation and experience, they are able to see a probability of improvement or discovery; and should this take place, especially soon after the beginning of a contract, their profits may be very considerable, as in this case they will be raising perhaps a large quantity of rich ores, at the same high rate of tribute agreed on when the ore was in small quantity and of inferior value. Sometimes, indeed, by this piece of good fortune, provincially termed a *sturt*, a party of four or six men have made a profit of 500*l.* or 600*l.* in the course of the two months. Such instances of good fortune, however, result entirely from the enterprise and intelligence of the men, who, should their expectations not be realized, may sometimes even be obliged to give up the contract with loss. Although, therefore, the first benefit of the discovery is generally that of the miner, the advantage to their employers is also great, especially after a new contract has been made, suited to the altered circumstances of the case.

MINERAL KINGDOM.—SECTION XXVI.

COPPER.—(continued.)

MINES.—The county of Cornwall alone produces more of this metal than all the other copper-mines of Europe put together; and in no part of the world are there any so productive. These vast riches became known, however, at a comparatively recent date, and copper-mines were wrought in Germany and Sweden several centuries before those of Cornwall were opened. The records of copper-mining in Great Britain are scanty and imperfect prior to the seventeenth century. The Romans had brass-foundries in different parts of Britain, but it does not appear from what places they got the copper; the probability is that it came from the island of Anglesea, as in a part of that country, to be mentioned hereafter, ore of this kind lay very near the surface. There are no remains whatever of the operations of the Romans in any of the copper-mines of Cornwall. It is stated by Carew that, in the year 1586,

the ore of a Cornish mine was shipped to Wales to be refined there; but the copper ore of Cornwall prior to the year 1700 was principally, if not wholly, derived from the tin-mines, or at least from mines which were originally wrought for tin. Copper was largely imported in the early part of the eighteenth century, and it was not until about the year 1720 that this country supplied itself with this metal from its own mines. The copper money of Great Britain was not coined from British copper until the year 1717. It was not till the latter end of the seventeenth century that mines were first set at work in Cornwall purposely for copper. At the revolution of 1688 the crown gave up all claims to the ores of what were termed the *ignoble* metals, and in consequence of this brighter prospect of realizing profits, large capitals became invested in mining speculations in Cornwall soon after that period. They have been carried on with great enterprise and increasing skill from that time, especially in later years, during which vast improvements have taken place in the whole art, but especially in the machinery employed for raising the ore and carrying off the water from great depths. M. Elie de Beaumont, a distinguished civil engineer of France, who visited Cornwall a few years ago, speaks in high terms of the skill with which the mining operations are conducted, and that he found the most recent discoveries both in science and art applied in practice with great judgment.

The greatest proportion of the mines of Cornwall lie between the town of Truro and the Land's End. They are not widely scattered, but are accumulated in groups on a small number of points. The most important are in the neighbourhood of Redruth. We have said, in the last section, that the ore is contained in veins which traverse the slate rocks, or killas, and the granite. There are three systems of these veins, or lodes, as they are called in the country: the oldest and the most numerous run in a direction from east to west; the next series run from south-east to north-west; and the third series, which are only known to be of a more modern formation because they cut through the others, have also an east and west direction. These veins are not vertical, but for the most part incline at a considerable angle. The east and west veins usually dip to the north at an angle of about 70°; but sometimes at so low an angle as 35°. Scarcely an instance has occurred of a vein having been found to terminate downwards, or, as the miner's phrase is, being cut out in depth. When the working of a mine is given up, it is in general either on account of its poverty or of the expense of sinking to a greater depth being greater than the produce would justify. The average width of these metalliferous veins is not more than three feet, and they are considered to be large if they are six feet wide. Instances, however, occur of veins of nine and twelve feet; and in one mine called Relistian Mine, there were parts of the vein which were thirty feet wide. The veins of more modern formation are, in general, wider than the oldest east and west veins. Their length is very various: the east and west veins have been traced for seven miles, but they do not extend in general farther than from one to two miles. Many remarkable phenomena occur at the intersection of the different series of veins, such as the older vein becoming richer on each side of the intersecting vein, and sometimes becoming richer on one side and barren on the other. These veins are not all copper lodes, for tin is also one of the great products of the Cornish mines.

There are at present eighty-four different copper-mines worked in Cornwall. The produce of these is very various, some being so poor as not to yield more than about half a ton of pure copper annually, while others yield above 1900 tons. Some of these mines are worked to a vast depth; that called Dolcoath has work-

ings at 1368 feet below the surface. The Consolidated Mines are by far the most extensive of any in Cornwall, or indeed in any part of Europe*. They are situated in the parish of Gwennap, about three miles east of Redruth, along the brow of a range of steep hills, and occupy an area of about 800 acres. The site is about 300 feet above the level of the sea, and the bottom of the deepest shaft is 1340 feet below the level of the sea, and 1652 feet from the surface, being the deepest excavation in Great Britain. The principal lodes are from two to eight feet wide, with branches from them varying from twelve to eighteen inches in width. There are vertical shafts, or pits, sunk upon the different lodes, which in the aggregate exceed twenty miles of perpendicular excavation over the whole area; and the aggregate extent of the levels, or ways, driven in all directions from these shafts, is about forty-seven miles. "The enormous power of machinery, employed on this concern for drainage and other purposes, greatly exceeds any similar combination in the whole world, and forms an unparalleled example of mechanical skill and ingenuity as applied to mining on its most extensive scale. This machinery consists of eight very large steam-engines, employed in pumping, their dimensions varying from ninety to sixty-five-inch cylinders; a smaller engine, of thirty-inch cylinder, used for the same purpose;—eight steam-engines, of about twenty-inch cylinder, employed in drawing ore and vein stuff;—being altogether seventeen steam engines, of which four are the largest ever erected. There is also a water-wheel, forty-two feet in diameter, employed in pumping; another, thirty feet in diameter, for driving machinery; and four smaller ones, for stamping and other purposes; altogether six in number. Several horse whips are also employed. Calculating the force constantly exerted by this stupendous accumulation of mechanical power, when working at a moderate rate, it may be stated as equivalent to the work of from 900 to 1000 horses; which, however, is by no means the extent of its power. Supposing that it were possible to employ animal power, three relays of horses would be required in the twenty-four hours, besides an extra stock for casualties, making the actual number of horses to which the engine-power at the Consolidated Mines is equivalent at least that of 3000 horses. It should, however, be taken into account that horses' power, so termed by engineers, considerably exceeds the strength of an ordinary horse (according to some authorities by one-third); and bearing this in mind, it will not perhaps be too much to say that the engine-power employed in these mines is nearly, if not quite, equal to the work of 4000 horses; and were it exerted to its full extent, to that of from 7000 to 8000 horses. The amount of human labour is proportioned to the power of the machinery; the number of persons usually employed being about 2,400, independent of the numerous class who derive support in an indirect manner from these mines." The ore is chiefly that variety called "yellow copper-ore;" and the average quantity of fine copper annually produced was, up to 1831, about 1300 tons, or about one-ninth of the total quantity of this metal annually furnished by Great Britain. Since then the quantity has considerably increased, having amounted in 1832 to 1530 tons, and in the year ending June last to 1914 tons. The gross returns for last year were 152,000*l.*, the charges 105,000*l.*, leaving a profit of 47,000*l.*

Several of the Cornish mines are worked under the sea; as in the parish of St. Just, where the entrance to them is almost on the very edge of the precipitous termination of the land, and the workings extend from the

* For this information respecting these remarkable mines, we are indebted to Mr. Fredrick Burr, a gentleman in the office of the chief engineer of the mines, John Taylor, Esq., through whose medium we have obtained it.

vertical shaft far under the bed of the ocean. It is long since the Cornish miner showed his daring intrepidity in undertaking works of this nature, for Botallack mine has been wrought under the sea from a very remote period; and Pryce, in his 'Mineralogia Cornubiensis,' gives the following interesting account of another mine:—"The mine of Huel Cock, in the parish of St. Just, is wrought eighty fathoms (480 feet) in length under the sea below low water-mark; and the sea in some places is but three fathoms over the back of the workings, inasmuch that the tanners underneath hear the break, flux, and reflux of every wave, which upon the beach overhead may be said to have had the run of the Atlantic ocean for many hundred leagues, and consequently are amazingly powerful and boisterous. They also hear the rumbling noise of every nodule and fragment of rock, which are continually rolling upon the submarine stratum, which altogether make a kind of thundering roar that would surprise and fearfully engage the attention of the curious stranger. Add to this, that several parts of the lode which were richer than others have been very indiscreetly hulked and worked within four feet of the sea; whereby, in violent stormy weather, the noise overhead has been so tremendous, that the workmen have many times deserted their labour, under the greatest fear lest the sea might break in upon them."

Anecdote of a Robin.—(From a Correspondent at Lewes). A few years ago a robin built her nest in a hole of a wall behind the hay rack of a stable, in the town of Lewes. The hay was tossed into the rack several times during the day, when she would seldom fly out of the nest, but remain buried in the hay. She could not get out of the stable till the groom went to clean the horse, which was generally about six o'clock in the morning; consequently, both the old bird and her young ones were obliged to remain hungry for some time, as birds generally seek their food as soon as it is light. It was very remarkable to see how patiently the old bird sat in her nest surveying the groom whilst cleaning the horse and tossing the litter about; and even the entrance of strangers would not much disturb her. All she would do, when any one approached very near, was to draw in her head and extend her wings over the inside of the nest: so close did she lie that few persons could observe her until her bright eyes, just peeping above the nest, were pointed out to them. As soon as the eggs were hatched, the stable window was left partially open during the day, to allow free egress and ingress, but shut at night. As soon as the young birds were able to hop out of their nest, the old ones enticed them away into the adjoining garden, took their station in a thick shrub, and there fed them until they were able to seek their own living.

THE OTTER.—No. II.

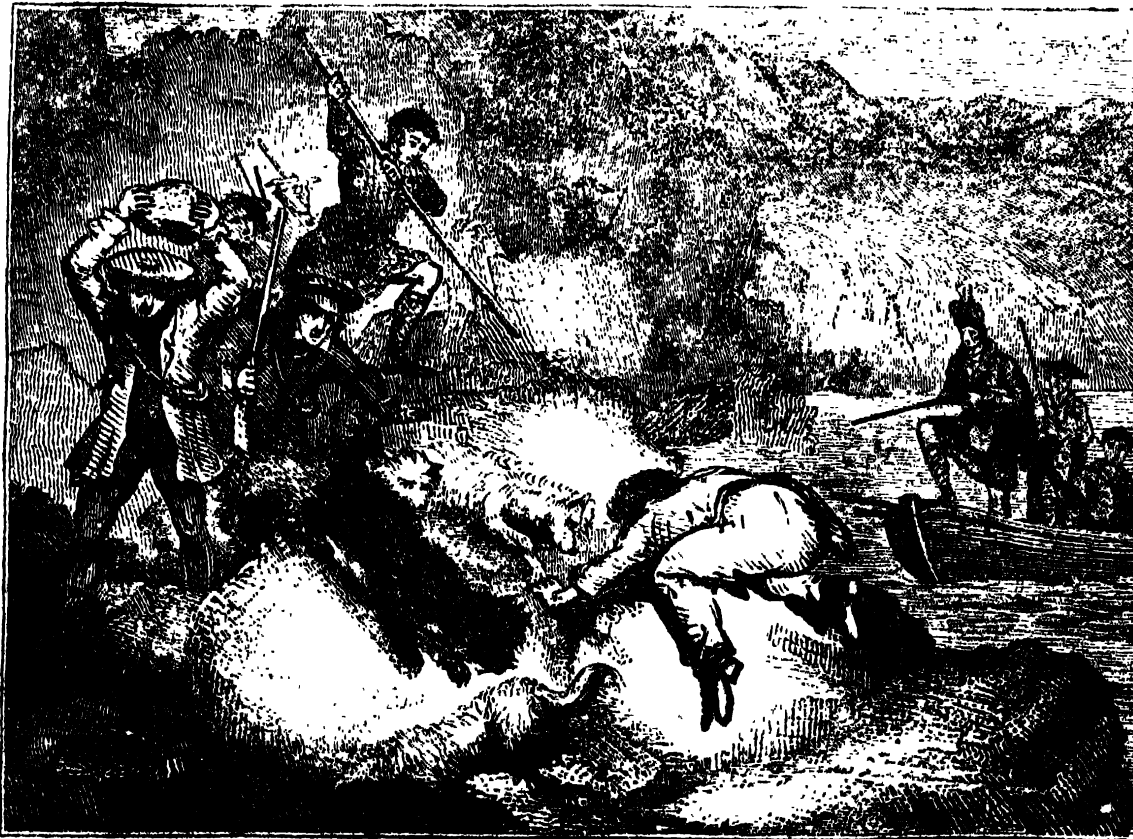
In the British Islands we have but one species of otter—the *Lutra vulgaris*. But the members of the genus are very numerous, and spread respectively over every quarter of the globe—nor are all confined to fresh waters; on the contrary, some are fishers on the sea, and take up their abode, like seals, in the crevices of rocks on the shore. Of these we may instance the *Lutra stelleri*, a native of the polar regions.

The otter is found on the wild shores of the western isles of Scotland. Among the Highlanders it is a favourite sport to hunt this animal with dogs of the terrier breed. Parties will sally out with torches at night-time, when the otter leaves his hole to seek food. During the day he conceals himself under the large bare stones or fragments of rock close to the margin of the sea, forming what is called a "curn." It is a difficult matter to force him from this retreat. The writer being in one of the Hebrides in the autumn of last year, accompanied a party of gentlemen attended by game-keepers for the purpose of witnessing this sport. It was a fine morning in September. Landing

on one of the islands from a boat, the terriers were loosened from the couples and left to their own instinct to find the otter's den. After scrambling a considerable distance over masses of rock and loose pebbles on a remarkably wild and beautiful shore, the dogs, by their eagerness of manner and incessant barking, convinced the party that the game was within scent. The gentlemen, with guns cocked, then arranged themselves in convenient situations for intercepting the passage of the otter, should he attempt to take refuge in the sea; some mounted on the tops of rocks, others stood near the water or in the boat which had accompanied the party from the landing place. The keepers in the mean time assisted the dogs in their efforts to discover the lurking-hole of the prey. One of them, a thick-set Highlander, displayed a very characteristic enthusiasm. Addressing the dogs in Gaelic, he set to work with all the fervour of the animals themselves, tearing away large stones from the mouth of the hole, and half burying himself to enable the dogs to come at their object; they in the meantime ran about, yelping in the greatest excitement, and scratching at every aperture between the stones. While this action was going on at one hole, a large otter poked his head out of another, and looked about with as much astonishment as his countenance was capable of expressing, until catching a glimpse of one of his enemies, he suddenly retreated from the light. This incident having been observed, the attention of the party was transferred to the retreat thus betrayed. A large stone was first uplifted and hurled upon the top of the pile, with the intention of either forcing the inmate out by the shock, or of breaking some of the stones. Then a pole was thrust into the crevice, which was enlarged so as to admit a dog. One of the canine besiegers immediately rushed in, and, after a few seconds spent in grappling with his an-

tagonist, an otter was dragged forth, at whom the whole body of dogs ran a-tilt. His defence was most heroic; many of his assailants exhibiting evidences of the power of his bite. The battle was continued for several minutes; and to those who delight in the display of animal ferocity, the noise of enraged combatants, and the sight of wounds and death, must have afforded high enjoyment. Dogs and otter, involved in one compact group, rolled down a precipitous ledge of crags, at the bottom of which, the power of numbers prevailing, the poor otter yielded up his life, "dying very hard," as it is called. Two more otters were taken directly after at the same cairn; one was shot as he made towards the water, the other was dragged by the tail, by one of the men, from his hole, and bagged alive. This was called a good day's sport. Although the otter, when attacked, is exceedingly courageous, he is considered a harmless animal, living, as described above, near the sea, and feeding upon fish. It is said, by the Highlanders, that this animal is somewhat of an epicure, selecting the back of the neck of the conger-eel, and generally preferring the upper parts of fish, leaving the rest to be devoured by the eagle or cormorant. This characteristic trait is confirmed by the written accounts of the river-otter.

Several English sportsmen have expressed surprise at the small dimensions of the dogs used in this kind of hunt in the Highlands. It is nevertheless true, that though some of the dogs are scarcely larger than the otter, their courage is quite equal to any encounter; and from their peculiarity of form they are perfectly adapted to enter the holes between the rocks, which to a larger animal would be impracticable. The writer of this account has seen little terriers of this breed exhibit marks of the severest bites from otters;—one dog had its lower jaw quite bitten away.



[Hunting for Otters at the Cairn.]

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176.]

November 30 to December 31, 1834.

THE HOUSES OF PARLIAMENT.—No. V.

THE HOUSE OF COMMONS.



If any mental infatuation might be called "amusing," none could be thus characterized with more propriety than that which most of the writers on the representative branch of our legislature exhibited during the century and half following the reign of Elizabeth. This infatuation was equally displayed by writers of the most opposite opinions. Their minds equally laboured under the strong conviction that a thing was good and lawful in the same degree in which it was old. Therefore those who were friendly to the popular branch of the legislature thought it absolutely necessary to go back to the times of the Saxons, and talk about *wittenagemotes* and *micel synothes*, relating how the Normans subverted the ancient liberties of the people, which they afterwards slowly recovered in the form in which they are now possessed. Others denied or doubted that the people, as distinguished from the aristocracy, possessed any share in the old Saxon assemblies, contending that the powers and privileges of the Commons were innovations on the ancient forms of the Constitution, and were founded on regal concessions, which in the course of time came to be claimed as rights. Both parties stated this point as if the powers possessed by the Commons could hardly be just or legal unless they were immemorial, and appeared to be wholly unconscious that if the fruit were good and pleasant, it mattered little whether the tree were planted yesterday or the day after the flood. One of the most sensible of the writers of this period says,—"Though the rise of Parliaments, like the head of Nilus, be unknown, yet they have bin of long standing and great power*." Thus, even when there was no attempt to trace the origin of the power, a stress was still laid upon the length of its duration. But the time is now come when people do not ask whether a thing be old, but whether it be just and good. We shall limit our own view to the period since the Conquest; and without wishing to impair the force of any argument which might be derived from ancient British or Saxon times, we shall be content to find that the power of the Commons has been of recent origin, and that the rights and powers of the third branch of the legislature grew with the growth and strengthened with the strength of the people.

A system of county representation seems to have been established at a period considerably earlier than the admission of burgesses to a place in the great council; but the first county representatives do not appear to have had any other business than to make the king and peers acquainted with the condition and the grievances of the several counties. For this purpose it was directed, in the reign of King John, not that the knights should attend the Parliament in person, but meet in their counties, and draw up their reports. But the "Mad Parliament" which met at Oxford in the reign of Henry III., in the year 1258, appointed twelve commissioners, and the King twelve more, to whom, acting conjointly, full authority was given to reform the state. This council of twenty-four made several very important regulations which are known by the name of the "Provisions of Oxford." One of these directed that each county should choose four knights, who should make themselves acquainted with the grievances of which their respective neighbourhoods had cause to complain, and should attend the ensuing Parliament in order to give information of the state of their particular counties.

From this time nearly seven years passed disturbed by wars and strifes between the king and the barons; and when the successes of the latter had rendered their leader, the famous Simon de Montfort, Earl of Leicester, the master of the kingdom, he summoned a parliament to meet at London, where his influence was very great; and to this parliament he called several barons and

churchmen, who were not immediate tenants of the crown, and, instead of four county representatives as before, it was directed that two knights should be returned from each shire and two deputies from each borough. This (1265) may be considered the first definite epoch of the House of Commons as at present constituted;—at least this is the first occasion on which the return of burgesses to parliament is at all mentioned by historians; nor, indeed, in any account, however particular, of parliamentary proceedings previously to that period, is there any appearance of a House of Commons: for if the knights of the shires were spoken of at somewhat earlier periods than we have indicated, it is to be remembered that the county representatives were no other originally than representatives of the smaller barons and lesser nobility, and could hardly be considered as representatives of the people.

After the date of Leicester's parliament, thirty years passed by, during which royalty regained its ascendancy; and the measures of the Earl being regarded as illegal and invalid, the burgesses were not again summoned to Parliament. Indeed, if some such measure as the admission of the burgesses to the great council "had not become necessary on other accounts, that precedent was more likely to blast than to give credit to it*."

But while the inhabitants of the country remained vassals at the disposal of the barons, the towns had grown in prosperity and strength, and many of them had received important municipal privileges and franchises from the kings, whose friendly consideration was drawn towards them by their peaceable and orderly conduct as contrasted with that of the turbulent barons and assuming ecclesiastics, and by a just sense of the value of their labour and ingenuity to the prosperity of the nation. The king, however, still retained the power of levying taxes upon the towns at pleasure; but in early times the "subsidies," as they were called, were drawn chiefly from the barons and the church; and the demands of the crown upon the towns were not exorbitant, nor indeed heavy. But when the towns had increased in wealth and importance, it began to be thought just that they should contribute more largely than formerly to the necessities of the state, and this concurring with the fact that those necessities had increased beyond what the peers and ecclesiastics could easily be brought to supply, occasioned much heavier exactions than formerly had been levied upon the towns. It was soon found that a power was wanting to enforce such demands, and that, in order to proceed peaceably with the boroughs, it would be requisite, in the first instance, to explain the necessity to them, and to overcome opposition by remonstrance and entreaty. To do this with every particular borough would have been inconvenient; and Edward I. soon perceived that there could be no better way of obtaining a supply than by assembling deputies from all the boroughs to take the subject into consideration. For this reason, in the year 1295, the king issued writs to the sheriffs, instructing them to send to the Parliament, not only two knights for the shire, but two deputies from every borough in the county; and that these should be empowered by their respective communities to consent, in their name, to what he and his council should require of them.

It is desirable here to specify a distinction which has now for a long time ceased to exist in the House of Commons. The knights of the shires were really knights, and the burgesses were really burgesses. The former represented the lesser nobility or gentry, who by their tenures had, under the feudal system, a right to a place in the great council, while the latter represented the burgesses and citizens of the several towns from which they came. Hence the knights of the shires occupied a different position from that of the burgesses,

* 'A Discourse of the Rise and Power of Parliaments,' 1677.

* Hume, chap. xiii.

and appear to have regarded them as forming an inferior and distinct body with which they had no connexion. But ultimately the immense estates distributed by the Conqueror became much subdivided, by which the number of the knights and gentry was so much increased as greatly to widen the distance between them and the barons. And in the same proportion that the distance increased between the county representatives and the peers in Parliament, it lessened between them and the burgesses, who, meanwhile, had gone on increasing in wealth and consideration; and as both the knights and the burgesses resembled each other in being representatives of large bodies of people, it in time ceased to seem unsuitable that they should unite to form one house and one interest. After that the gentry made no scruple of appearing as deputies from boroughs, and all practical distinction between a knight and a burgess in Parliament very soon ceased.

Having thus succinctly stated the origin of the House of Commons, we may proceed to notice some facts which illustrate its early condition.

It is remarkable that all the early proceedings relative to the convening of the commons, at least of the burgesses, recognizes a difficulty in inducing the boroughs to send representatives, and in finding suitable persons willing to be sent. We may seek for an explanation of the unwillingness of the former in the fact that their representatives were generally brought to yield to the demands of the crown; and it could hardly be expected that the constituent boroughs would feel interested in facilitating the business of taxation. Besides, they had to pay the travelling expenses of their representatives, as well as to allow them a daily stipend while attending the parliament; and inability to meet such charges was the excuse of some boroughs for desiring to be exempted from the duty of sending members to the great council. The sheriffs had much power over the elections in those days. The representatives of the boroughs were, as we have seen, actually burgesses of the places they represented; and if the sheriff was unable, or affected to be unable, to find in particular boroughs suitable persons for representatives, he assumed the liberty of omitting those boroughs in his returns. For such conduct he usually obtained the thanks of the people; and as the voice of the majority of the deputies that actually attended was binding on all the boroughs, the court did not complain. Again,—"If the sheriffs were knavish, and pocketed the money levied for the travelling expenses of the members,—and many such instances are found,—the circumstance became immediately available as an excuse for absence*."

It is quite as easy to understand the reluctance of burgesses to undertake the office of representing their towns in parliament. By doing this they were brought forward unpleasantly, becoming exposed as individuals to the rapacity of the local or general authorities, and incurred liabilities to penalties and forfeitures. Besides, their position in the "king's council" was exceedingly awkward and invidious; and, what perhaps weighed more than any other consideration, the condition of the roads and of conveyances was such in those times as to render travelling tedious and uncomfortable, while the state of the times and the country rendered it dangerous and unsafe. It does not appear as if the office were in the earliest periods ever voluntarily undertaken; for the representatives always seem to have been performing a duty highly unpleasant to themselves, and which they were always anxious to terminate as soon as possible, and return to their homes. At first the persons elected were obliged to give sureties for their appearance before the king and parliament. There seems to have been nearly as much difficulty in the case of the county representatives. In the thirteenth century

the average qualification of a knight of the shire varied from 20*l.* to 40*l.* yearly value in land. "The object of selecting the man of money was evidently with the intention of seizing it in case of non-attendance. . . . If a knight chosen to serve in parliament chanced to lack property to the amount of 20*l.* whereby he could be distrained, and, being thus impervious to the sanction attached to refusal, escaped from the jurisdiction of the sheriff's bailiwick, and hid him to another county, the sheriff was obliged to seek a substitute in the place of the fugitive to attend the king's council." It was probably with the view of obviating this reluctance to serve, that the system of wages was first devised. The pay of a knight of the shire was usually from 3*s.* to 5*s.* a day, and that of a citizen or burgess from 2*s.* to 3*s.*,—sums respectively equivalent to much larger amounts at the present time. It was thus, and by the skillful distribution of local offices in the administration of justice and the collection of taxes, and still more by the increased respectability of the office of a representative in parliament, that the kings in time found the difficulty of convening the commons of the kingdom diminish; but it was not until the reign of James I. that a seat in the House of Commons became decidedly an object of ambition and of contest at elections.

The representatives of the commons in the early Parliaments did not amount to anything near the present number. The number underwent little variation until the reign of Henry VIII., at whose accession the numbers stood as at the head of the ensuing table, which also states the additions afterwards made.

	Counties and Boroughs.	Members.
At the Accession of Henry VIII.	147	296
Added by Henry VIII.	32	38
" Edward VI.	22	44
" Mary I.	14	25
" Elizabeth	31	62
" James I.	14	27
TOTALS	260	492

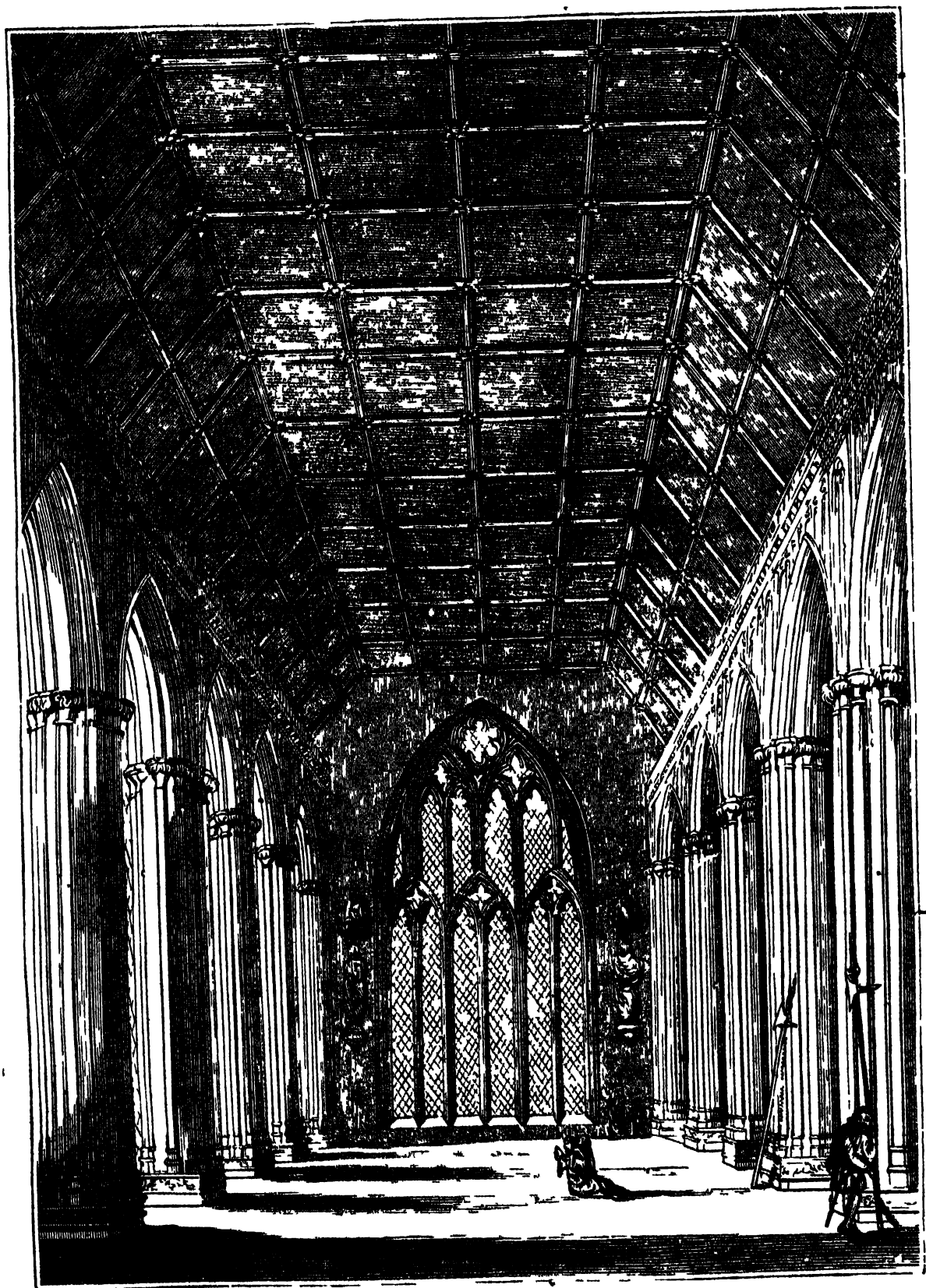
This table, however, does not afford a perfectly true result, because it only states additions, and takes no notice of defections in the number. Thus the town of Calais in France was represented in Parliament in the three first reigns on the list; and several boroughs were excused by Elizabeth from sending representatives. From Hollinshed, however, we obtain the following as the actual number of the "Congregates in the Parliament," in the year 1586; and for the sake of comparison we will oppose his statement with similar ones for the periods immediately preceding and subsequent to the passing of the Reform Bill:—

	1586.	Before Reform Bill.	Since Reform Bill.
Knights	90	92	158
Citizens	46	50	
Burgesses	249	351	338
Barons of the Cinque Ports	14	16	
University Members		4	4
England	439	513	500
Added for Scotland ..		45	53
Ireland ..		100	105
		658	658

Coke says that the number of the Commons was 800 in the time of Fortescue, and 493 in his own time†. This agrees with our tables, and shows that very inconsiderable addition has been made to the number of the English representatives since the reign of James I., although the accession of Scotch and Irish members has greatly enlarged the assembly on the whole. The additions made by Henry VIII. consisted chiefly in

* Westminster Review, Oct. 1834.

† Institutes, part iv. ch.



[Restoration of St. Stephen's Chapel.]

giving representatives to the Welsh counties and boroughs.

It does not exactly appear whether in the original constitution of parliaments any definite period was fixed for their duration. In practice, however, they were frequently called, but the matter seems to have been left to the will of the crown until the 4th of Edward III., when it was enacted that a parliament should be holden every year once, or oftener if need be. In the reign of Edward's successor, the frequency of parliaments seems to have been a subject of complaint. Stow says that in a parliament held in London, the clergy granted the king a tenth, and the temporality a fifteenth, on the condition that no other parliament should be holden from the calends of March until Michaelmas. Another statement of the same writer shows that a year's duration of a Parliament was considered a remarkable circumstance in 1406:—"The 1st of March a parliament beganne which lasted nigh one whole yeere; for after the knights had long delayed to grant the king a subsidie, yet in the end being overcome they granted the tax demanded." Nevertheless, Henry VIII. and his successors prolonged their parliaments at pleasure. That monarch had one that lasted nearly five years and a half; Edward VI. one of four years and five months; Elizabeth one of nearly eight years; James I., one of nearly similar duration; the "long parliament," commenced in the following reign, and dissolved by Oliver Cromwell, lasted upwards of twelve years; and one of the parliaments of Charles II. extended to the great length of nearly seventeen years. But in the same reign an act was passed "for the assembling and holding of parliaments once in three years at least." This was intended rather as a limitation of the recent practice than as an extension of the original statute; and was afterwards repealed and again renewed; but in the 1st year of George I.'s reign, it was alleged that "a restless and popish faction were designing and endeavouring to renew the rebellion within this kingdom, and the report of an invasion from abroad;" and it was therefore enacted that the then existing parliament should continue for seven years and no longer. Since then the duration of Parliament has been nominally septennial; but the practical duration has, taken generally, been much shorter, in consequence of changes of administration and the demise of the Crown. Upon the death of the reigning king a new Parliament, as most of our readers know, must be summoned after a prescribed time.

We have already alluded to the unpleasant, awkward, and inferior position of the original representatives of the people in Parliament. "They composed not, properly speaking, any essential part of the Parliament: they sat apart both from the barons and knights, who disdained to mix with such mean personages. After they had given their consent to the taxes required of them, their business being then finished, they separated, even though the Parliament still continued to sit and to canvass the national business*." Their ultimate participation in general questions of state by no means appears to have been of their own seeking; and here it may be interesting to quote a few instances which show how carefully the early representatives of the people avoided such general questions, even when invited to their consideration. It enables us also to perceive the position which, even in their own opinion, they occupied; and we are much mistaken if our readers will not consider it interesting to view, in the timidity and fearfulness of its infancy, an institution which has grown up to what the House of Commons now is.

In the thirteenth of Edward III. a parliament was called to consult of the domestic quiet, the defences of

the marches of Scotland, and the security of the seas from enemies. The Commons were requested to afford their advice on these subjects; but they humbly desired not to be put to consult on matters of which they had no cognizance. In the twenty-first year of the same reign the Commons were urged to give their opinion on the great question of a war with France. They were persuaded to consult together on the subject, and, after four days' deliberation, answered that, their humble desire was that the King would be advised therein by the Lords, who had more experience in such affairs than themselves.

In the sixth of Richard II., the Parliament was called to consult whether the king should go in person to rescue the city of Gaunt (Ghent) or send an army. When the Commons were asked their advice, they humbly answered, by Sir Thomas Puckering, their speaker, that the councils of war did more properly belong to the King and the Lords than to them. The year after, they were requested to give their advice on the articles of peace with France; but they modestly excused themselves as too weak to give counsel in such weighty matters. But being charged again, as they valued the reputation of their country and the rights of their king, to give their advice, they humbly gave their opinion rather for peace than war. These facts substantiate the conclusion of the writer from whom some of them are derived, that a member of the Lower House of Parliament, in those days, "thought it the adequate object of his duty to study the welfare, to complain of the grievances, and to have the defects supplied, of the place for which he served*." Queen Elizabeth would seem to have had in view this early spirit of the Commons when she warned them, in her day, not to meddle with the queen's person, the state, or church government.

So strictly was the business of the Commons limited, in early periods, to the consideration of the pecuniary demands of the crown, that when there were grievances of which they had cause to complain, or evils which they desired to have redressed, their only mode of proceeding was by petitioning the king. They could originate no measures themselves; and as such transactions are usually stated, it appears that all remedial measures were matters of hard-driven bargain between them and the crown. In return for their money, they petitioned for the removal of any immediately-pressing grievance; and, although their manner was humble, the king knew that it would be difficult for him to get the next supply from them unless he complied. Indeed, a long time did not elapse before they discovered that the most effectual way of procuring attention to their petitions was not to grant the supply demanded until their petitions had been answered. "The more the king's demands multiply, the faster their petitions increased, both in number and authority; and the prince found it difficult to refuse men whose grants had so often supported his throne, and to whose assistance he might so soon be again obliged to have recourse. The Commons, however, were still much below the rank of legislators. Their petitions, though they received a verbal assent from the throne, were only the rudiments of laws: the judges were afterwards intrusted with the power of putting them into form; and the king, by adding to them the sanction of his authority, and that sometimes without the assent of the nobles, bestowed validity upon them†." The form of a modern bill seems a remaining evidence of this state of things; and is in its form but a petition that it may become a law by the sanction of the king. It begins with describing the grievance that needs redress, or the

* 'An Enquiry into the Original Constitution of Parliaments in England and Scotland,'—1716.

† Hume, chap. xiii.

* Hume, chap. xiii.

evil that requires remedy, and then says—"Therefore may it please your Majesty that it may be enacted;—and be it enacted, &c.," proceeding to the details of the measure. The actual difference is now that both the Lords and Commons must concur in such a bill or petition before it reaches the king; and that it thus reaches him with an authority which is, in point of fact, irresistible, although the forms of the constitution give him the power of negating its prayer.

It does not appear that the House of Commons itself began to be petitioned until about the middle of the reign of Henry VII.; and even then, although the petition is directed to that House in point of title, yet its prayer is rather turned to the king than to the commons. The petition begins thus:—"To the right worshipful Commons in this present parliament assembled, shows to your discreet wisdoms, that the warden of the craft of upholsterers within London, &c.:" but the conclusion is,—"Therefore, may it please the king's highness, by the advice of the Lords spiritual and temporal, and his Commons in parliament, &c." Mr. Hallam, whose 'Constitutional History of England' begins with this reign, numbers the following among the restrictions on the royal authority which had then become distinctly established—that the king could levy no new tax without the consent of both Houses, whose previous assent was also necessary to every new law. "England," says the same writer, acquired in the fifteenth century a just reputation

for the goodness of her laws, and the security of her persons from oppression. This liberty had been the fruit of ages, still waiting the time for its perfectness, but already giving proof of the vigour and industry which had been employed in its culture*."

In the early periods of the history of the House of Commons, we find that the kings exercised the power of regulating writs and elections at pleasure, with the advice only of the privy council. In proof of this, as well as on account of some other points of interest it contains, we may quote the important writ of Henry VI. which placed the elective franchise in the hands of the 40s. freeholders, as a limitation of the more extensive right of suffrage which previously existed. "Whereas elections of knights have been made with great outrages and excessive numbers of people, of which most part were people of no value, yet pretend a voice equal to worthy knights and esquires, whereby many riots, manslaughter, and divisions among gentlemen shall likely be. Our lord the king hath ordained that knights of shires be chosen by people dwelling in the counties, every one of them having lands and tenements to the value of 40s. *per annum* at least, and that they who are chosen be dwelling and resident within the counties where they are elected."

After the separation of the two houses each set up particular jurisdictions for the better regulating their own house, and for the punishing of offences against its privileges; but their orders, as at present, continued in force no longer than while their session lasted. The following two instances of the exercise of its jurisdiction by the Lower House in the time of Elizabeth are from the fourth part of the 'Institutes' of Sir Edward Coke. "Thomas Long gave 4*l.* to the Mayor of Westbury to be elected burgess, and he was elected; the mayor was judged by the House of Commons to be imprisoned and fined according to law and the usage of parliament; and the election of Long was declared void. Arthur Hall, a member of the House, for discovering the conferences of the House, &c., was adjudged to be committed to the Tower, fined 500*l.*, and expelled the House."

Nevertheless it was long after the separation of the

Houses before the Commons could punish an external offence against their privileges until they had conferred with the Lords, and the latter had referred the punishment to them. We may quote an example of this which occurred in 33d Henry VIII. George Ferrers, the king's servant and member for Plymouth, was arrested for debt by a process from the King's Bench. When this was signified to the Speaker, Sir Thomas Moyle, he sent the sergeant that attended the House to the Compter to demand Ferrers; but the officers of the Compter not only refused to deliver up the prisoner, but showered abundant abuse on the sergeant. A scuffle ensued, in the course of which the sheriff of London arrived, but as he took part with the Compter, the sergeant was obliged to return without the member. This being reported to the Commons, they immediately went and desired a conference with the Lords, who, on consideration, thought the contempt to be very great, and referred the punishment to the Commons themselves.

There are numerous instances of the very light esteem in which the privileges of the Commons were held by the court for upwards of three hundred years after their first introduction to the parliament. We may quote one comparatively recent instance. In the twenty-third year of Elizabeth's reign Mr. Paul Wentworth moved in the House for a public fast, and for a sermon every morning at seven o'clock before the House sat. This motion was decided in the affirmative by a majority of 150 to 100, and an order was passed accordingly. When the queen heard of this, she sent her Vice-Chamberlain to the House to signify,—"That her highness had great admiration of the rashness of the House in committing such an apparent contempt of her express command, as to put in execution such an innovation without her privy or pleasure first known." Thereupon Mr. Vice-Chamberlain moved the House to make an humble submission to her Majesty, acknowledging the said offence and contempt, and to crave remission for the same, with a full purpose to forbear committing the like thereafter.

We rather quote the above fact for the sake of the incidental statement of the early hour in the morning at which the House then assembled. It would appear that nine in the morning was then the usual time, as it long continued to be nominally, even when the actual hour had been altered. The reader may be interested by the following notices of the custom in this respect at different subsequent periods. The first instance is given as quoted by Malcolm from the Journals of the House:—"31st May, 1610.—This day the lord mayor, with the citizens in the liveries of their several companies, went to Putney on their way to Richmond, and waited upon Prince Henry coming down to Whitehall; the Duke of Brunswick, Earl of Shrewsbury, Earl of Pembroke and the Earl of Marne in the barge with him. At nine o'clock in the morning they went. The drums and fifes were so loud, and the company so small, that Mr. Speaker thought not fit, after nine o'clock, to proceed in any business, but to arise and depart." About thirty years after, Hyde, afterwards Earl of Clarendon, but then a Member of the House of Commons, is found complaining "of the House keeping those disorderly hours, and seldom rising until four in the afternoon." A writer in 1761 informs us that "Although the Speaker always adjourns the House to nine o'clock of the morning of the day when they agree to meet again, the House seldom meets till twelve." Till very recently the House did not meet for the dispatch of public business until five in the afternoon—a later hour than that at which Hyde thought it "disorderly" for the House to remain sitting; and it seldom rises before midnight, and often remains sitting until two, three, or four in the morning. There has lately, however, been

* 'Constitutional History,' vol. i. p. 2.

an early sitting, from twelve till three, for the reception of petitions.

It appears that so long as the two Houses sat together, the Commons had no fixed speaker; but after deliberating on a subject, they made choice of one of their number who was presumed to be best acquainted with the business in hand to deliver the conclusion at which they had arrived. This practice was found to occasion delays; and as the Commons could not have a regular president while the two Houses sat together, it is considered one of the principal causes, if not the only cause, that led to the separation. The best way, therefore, according to Sir Edward Coke, to ascertain the time when this division took place, would be to find when the Commons first had a settled speaker as at present. After the separation, the same writer adds that the Commons sat in the Chapter House of the Abbot of Westminster, and cites, as his authority, a Parliament roll of 50 Edward III., which consequently proves that the separation had taken place before then. The Commons assembled in the Chapter House, adjoining "Poets' Corner;" of course by the sufferance of the Abbot of Westminster. The Abbots of Westminster were in those days great personages and lords of Parliament, and it does not appear that they held them in very high respect.

The "Westminster Review" which we have before us states that "on one occasion the Commons, in the solemn purposes of their deliberations, and created so great a disturbance, that the Abbot was waxed indignant at the profane and irreverent conduct of a sufficiently strong party, turned them out of his House, and swore justly that the place should not again be defiled with like rabble."

The necessary and frequent communications between the two Houses, in the progress of Parliamentary business, doubtless occasioned much inconvenience to be experienced, on account of the distance, while the Commons sat in the Chapter House and the Lords in a room of the old palace, on the east side of Old Palace Yard. It is not, therefore, surprising that, when an opportunity offered, St. Stephen's Chapel should have been thought of for the meetings of the Commons. In what manner it was first fitted up for this purpose is nowhere explained; but it is supposed that the paintings with which the stone walls of the original chapel were ornamented were, previously to that time, exposed to view, but that they were, on that occasion, wainscoted up. In several law seals of the year 1648, in the Parliament seal of 1649, and the Dunbar medal of 1650, the walls are represented with a plain wainscoting. It appears, however, that about the year 1651 the walls were covered with tapestry-hangings, probably to conceal this wainscoting, for they are so given in the perspective view of the House of Commons on the back of the great seal of the Commonwealth of England of that year; and in this manner the walls continued to be decorated down to the time of Queen Anne, in whose reign Sir Christopher Wren was employed to repair the building, and refit up its inside with galleries. Mr. Onslow, when speaker, was heard to say that he remembered the tapestry hangings being up, and that every new Parliament a new set used to be

provided, the housekeeper, on such an occasion, claiming the old hangings as her fee. From Queen Anne's time no external or internal alteration of any consequence took place in the building until 1800: only a trifling change had been made in the form of the turrets, and a few variations at the east end. At the period last mentioned, as we stated in a former Number, accommodations for 100 additional members was provided by taking down the old side walls, which were three feet thick, and erecting others, the thickness of which was only one foot, thus gaining four feet additional breadth. The discovery of the old paintings and sculptures on the wall, which took place on that occasion, has already been stated.

While these alterations, with a new fitting-up of the interior, were in progress, the Painted Chamber was prepared for the temporary accommodation of the Commons from the 11th of November to the 31st of December, 1800. The curious old tapestry supposed to represent the siege of Troy was taken down, and placed in a cellar under the building. The walls were then covered with paper, for the convenience of hanging which a scaffolding was erected, and this was the means of discovering those old historical paintings, with inscriptions, which we mentioned in the article on the Painted Chamber.

Hutton, in his 'New View of London,' thus speaks of the House in 1703:—"The Commons' House is little to the northward from the Lords, somewhat nearer the Hall, a commodious building accommodated with several ranks of seats, covered with green and matted under foot, for 513 gentlemen, of which number this honourable, learned, and judicious assembly consists,—the like, in all these respects, perhaps nowhere to be paralleled. On three sides of this House are beautiful wainscot galleries, sustained by cantelevers enriched with fruit and other carved curiosities." The wood-cut at p. 505 exhibits the appearance of the House about twenty-five years after this period.

A writer in 1761 thus describes the appearance which the House of Commons then presented:—"It is at present a spacious room wainscoted up to the ceiling, accommodated with galleries, supported by slender iron pillars adorned with Corinthian capitals and sconces. From the middle of the ceiling hangs a handsome branch or lustre. At the upper end the speaker is placed upon a raised seat, ornamented behind with Corinthian columns, and the king's arms carved and placed on a pediment. Before him is a table, at which the clerk and his assistants sit near him on each hand just below the chair; and on each side, as well below as in the galleries, the members are placed promiscuously. The speaker and clerks always wear gowns in the House; but no other members wear robes, except the four representatives for the City of London, who, the first day of every new parliament, are dressed in scarlet gowns, and sit all together on the right hand of the chair next the speaker." The interior of the House, as it appeared previous to the recent conflagration, has already been described. The wood-cut at page 508 exhibits St. Stephen's Chapel, as it is supposed to have appeared when it was used for ecclesiastical purposes.

* London and its Environs described, 1761. Vol. ii., p. 166.

END OF VOLUME THE THIRD.

